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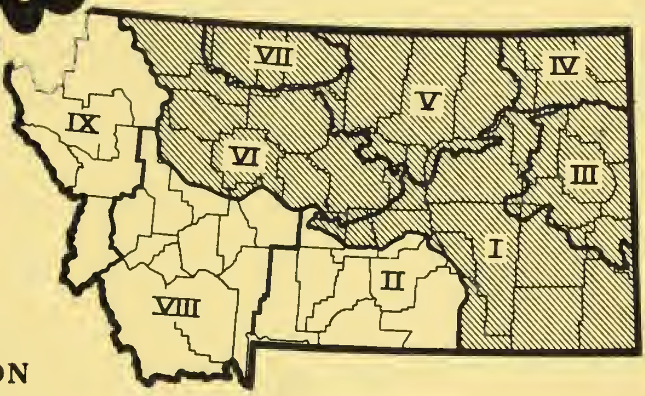
FARM ADJUSTMENTS IN montana

GRAPHIC SUPPLEMENT



NEIL W. JOHNSON
SENIOR AGRICULTURAL
ECONOMIST

●

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS,

IN COOPERATION WITH
MONTANA EXPERIMENT STATION

WITH THE ASSISTANCE OF
WORKS PROJECTS ADMINISTRATION

●

BAE

WASHINGTON, D. C.
JULY 1940

BAE

AGENCIES AND THEIR CONTRIBUTIONS

A study of maladjustments in agriculture involves many of the physical sciences as well as economics. As a consequence, the resources of the Montana Agricultural Experiment Station have been drawn upon to an unusual degree in making the study of which this graphic supplement is a part. The listing presented here will acknowledge the contributions of those most actively connected with the project.

For their assistance and inspiration in inaugurating and executing the farm-adjustment studies, particular credit is due the late C. L. Holmes, formerly in charge of the Division of Farm Management and Costs of the Bureau of Agricultural Economics; Sherman E. Johnson, now in charge; E. A. Starch, formerly head of the Department of Agricultural Economics, Montana State College; and R. R. Renne, now in charge.

Director Emeritus F. B. Linfield and Director Clyde McKee of the Montana Agricultural Experiment Station have constantly encouraged the efforts of the entire research staff.

Bureau of Agricultural Economics

Neil W. Johnson, active direction of project for B.A.E. and preparation of this supplement.
Marion Clawson, active direction of project for period September 1937-July 1938.
R. B. Haight, information on land productivity and income, present and potential land use in dry-farming areas.
R. G. Hainsworth, arrangement and supervision of final drafting work for this supplement.

Montana Agricultural Experiment Station

M. H. Saunderson, Experiment Station representative until July 1938, information on livestock and range management.
O. A. Parsons, Experiment Station representative since September 1938.
R. R. Renne, data on tax delinquency, land ownership, and public services.
P. L. Slagsvold, information and analysis on irrigation in Montana.
L. F. Gieseker, information and analysis on soils and land classification in Montana.
Carl W. Berryman, supervisor statistical compilations, and field checking.
Gerald J. Oravetz, supervision of preparation of original county maps upon which this supplement is based.
Maurice Zimmerman, statistical supervisor spring and summer, 1936.
John Nye, supervision of collection of livestock data from each county assessor.
Ethel Cordes Coey, statistical work.
Dorothy Moss, statistical work.

Montana Agricultural Extension Service

H. G. Bolster, Extension Land Economist, consultant in shaping the data for county program planning.

County agricultural agents aided in field check of data and advised on project

Works Projects Administration

Statistical data were drawn freely from the following projects:

O.P. 65-91-1869 (W.P. 804) : O.P. 465-91-3-2 (W.P. 1647)
O.P. 165-91-7999 (W.P. 7008-1235): O.P. 465-91-3-22 (W.P. 1755)
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O.P. 665-91-3-44 (W.P. 2421)

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A Contribution to Montana Planning

What are the agricultural resources of Montana? Who owns the land? How bountiful has Mother Nature been in her endowments? What degree of wisdom has man shown in adapting himself to this environment? What factors have left their imprint in the present agricultural pattern and of these which continue to exert influence? The answers to such questions are found in Montana Agricultural Experiment Station Bulletin 328, Physical Environment and Economic Factors Affecting Montana Agriculture. This type-of-farming study, published in 1936, is the foundation for a continuing series of studies in farm adjustment in Montana.

The State-wide treatment in Bulletin 328 furnishes a background of useful general knowledge, but a clear-cut focus on the problems of specific areas is also needed. Later studies supply this by grouping Montana's 56 counties into 9 large areas where conditions are somewhat similar (see frontispiece). These areas in turn are divided still further to obtain a greater degree of similarity. Problems in farm adjustment in these areas and subareas are now being studied to furnish basic data that will be useful to those engaged in county-planning activities. Montana Agricultural Experiment Station Bulletin 367, Study of Area VII: Its Past, Present, and Future and Bulletin 377, Study of Area IV: Its Past, Present, and Future are the first two in the series on separate areas to come from the press. A similar study for Area III is now in preparation. Publications for the balance of Montana's foothill and plains areas (Areas I, V, and VI) will be issued prior to those for the mountainous third of the State (Areas II, VIII, and IX).

Despite the gradually narrowing focus from State, to area, to subarea, the county planner will find the story incomplete unless the data can be visualized in terms of small communities and ultimately the individual farm. This supplement to the studies previously described is a graphic story to help in this visualization.

What Story Do the Maps Tell?

These maps tell a relatively simple story. They are designed to aid in answering such questions as these - Where are the farms located? What kind of farming are they doing? How well are they faring? If not too well, what are some of the most probable causes of the trouble?

specifically this supplement contains a series of seven maps for each of the six large areas indicated on the frontispiece. These may be briefly described as follows:-

1. Present Location of Farms by Type and Type-of-Farming Subareas. - This map shows two main items (1) the approximate location of nearly all the operating units in each area and subarea and (2) the type of farming conducted by each unit. As the analysis is confined to the dry-farming and range areas, only three major types are dealt with - wheat farms - combination wheat and livestock - and ranches or livestock farms.

2. Farms having Gross-Income Expectancies of $1,000 or Less. - These four maps show the location of those farms and ranches that, as currently organized, appear to have little chance of permanently supporting a farmer and his family. This is shown for "All Farms" and for the different farming types. These maps give a rough idea of where the poorer farms are concentrated. They also indicate the types of farming for each area that show the greatest amount of distress.

3. Major Weaknesses in Factors Affecting Income on Farms with Gross-Income Expectancies of $1,000 or less. - Having isolated the distress areas, a next step is that of discovering the causes of the trouble. Four factors having a great deal to do with the success or failure of farmers in the Great Plains are (1) Total acres operated, (2) average acreage seeded to wheat, (3) average wheat yield per seeded acre and, (4) amount of livestock kept. This series of dot maps show for each area the results of testing the low-income farms previously mapped for possible weaknesses on these points.

Only those of the low-income farms which are especially weak in any of these factors are indicated by dots on these maps. 1/ To take an example, let us suppose that Bill Jones' wheat farm located in subarea 32, Range 15, Township 34 of Area VII is indicated as having a low-income expectancy. His farm is larger than 320 acres and he averages more than 100 acres seeded to wheat each year. However, his yields average less than five bushels per seeded acre and he runs no livestock. Under these conditions, his farm will appear only on those maps showing serious weaknesses in wheat yields and in animal units. Thus, the relative density of dots indicates which of these four factors or what combinations of them are likely to be causing the trouble on the low-income farms in various portions of the area.

1/ While arbitrary figures are open to question, it is assumed from a study of these data that serious weakness is exhibited in size if the farmer is operating 320 acres or less, if he averages no more than 100 acres seeded to wheat, or if he obtains average yields below five bushels per seeded acre. Small wheat farms are likewise considered risky if no livestock are carried as an insurance factor. Conditions of course, do not always permit this. Combination farms with no more than 10 animal units or livestock farms with no more than 25 are also considered especially weak in this enterprise.

4. Classification of Farm and Grazing Land. - Low wheat yields may result from the attempt to raise wheat on land adapted only to grazing uses. Comparison of the location of low-income farms with the land-classification map may throw light on this question. This map should prove generally helpful to farmers and administrators concerned with the problem of determining what lands should be withdrawn from cultivation and returned to grazing uses. The map was formulated from the latest revisions of earlier maps of a similar nature and represents the best over-all picture now available. A necessary step, however, is that of refining the generalized areas in greater detail on the basis of farmer experience and observation.

5. Status of Tax Delinquency, July 1, 1936. - The promptness with which farmers pay their taxes is one good indicator of rural welfare. The tax status, of course, is a dynamic picture, changing from year to year. It is desirable, therefore, to check at intervals to determine whether tax delinquency is chronic, or transitory in certain areas. If the condition is chronic, the causes of tax delinquency are likely to be deep-seated and well worth careful consideration. The status of tax delinquency presented here is already 4 years old. A fruitful field for local planning groups would be that of bringing these data up to date, studying the causes for changes exhibited since 1936 and recommending the types of action that seem desirable.

6. Kind of Land Ownership, March 1, 1937. - Misuse of land is frequently associated with certain kinds of land ownership. Presumably the owner-operator (designated in solid black on the ownership maps) has the greatest stake in achieving proper land use and in maintenance of these resources. Even here, however, circumstances may combine to force the operator to use his land in ways he realizes are unwise. Land held for investment purposes by nonresident corporate owners may be drained of its values to enable declaration of the customary dividend - the immediate gain bulking much larger than possible future benefits. Problems of maladjustment in a distress area can only be corrected through cooperation of those who own the land. Even where the nature of needed adjustments is well-defined the best line of attack will vary considerably depending on whether the interests of owner-operators, nonresidents, corporations, States, or counties are involved.

7. Roads and Schools, 1939. - The boarded window and the closed door of many a country school offer mute testimony to changing conditions. What do these things mean? Is the area no longer able to support an adequate educational program or is the one-room school being supplanted by more modern facilities spaced farther apart? Perhaps the answer lies deeper - possibly the number of children of school age has shifted radically in certain areas. What are the factors that have caused these shifts? Are they still actively at work?

Are the county expenditures for maintenance of roads in line with the use now made of them? The same question can be applied to studies of all types of public services in an attempt to give the farmer the most for his tax dollar.

Such is the story told by these maps. While each explores a particular line of thought the county planner should not lose sight of their interrelationships. The presence of low incomes in an area may be verified by abandoned schools, chronically tax delinquent lands, a high proportion of absentee ownership, etc. The causes for these conditions in turn may be traced back to misuse of the land or to the ways in which farms are now organized and operated.

It will be seen that these maps only open the doors on various avenues of investigation. They provide clues to the nature of maladjustments but leave to the farmer-planner the job of local interpretation. If yields are low why are they low - if wheat farms are too small why have farmers failed to make the adjustment to larger sizes? Why don't wheat farmers keep more livestock? Why are taxes delinquent and schools abandoned - why, and again why? Then after the "whys" have been thoroughly investigated - what can be done about it?

No attempt is made to provide interpretations for these maps. This is being done to some extent in the series of area bulletins which these maps supplement. In the last analysis, however, local people are the ones best fitted to supply the proper local interpretations.

The generalized picture is of value in permitting comparisons between large areas. In addition to the impression that can be gained from the maps in this regard, a single table summarizing some of the more important facts about these 6 large areas and their 62 subareas is included as a preface to the exhibit of area maps. The number of wheat farms, combination farms, and ranches in each area and subarea is given, together with the number falling in various classes of probable income expectancy.

While the generalized picture has value, it is believed that local groups will gain most by focusing attention on the story for their own local areas.

How Was This Story Obtained?

By using information from many secondary sources, it was possible to build up individual card records showing farm organization and production on more than 28,000 farm-operating units. Well over 90 percent of the dry-land farmers in the plains area of Montana cooperated in the triple A wheat programs of 1934 and 1935. Still others availed themselves of the drouth purchase program for cattle and sheep in 1934. A limited number signed up for corn-hog adjustment. Many were making application for loans to the Regional Agricultural Credit Corporation. Others applied for grazing permits on national forest or public-domain lands. All were, of course, reporting to the county assessors.

The acreage and production of wheat on individual farms was available for the eight years 1928-1935, but data on livestock were obtained only for 1933. By applying long-time prices to production as indicated, the probable long-time gross-income expectancy of Montana farms and ranches as currently organized was approximated. These cards were then checked in the field to insure that the picture they showed was substantially correct and that important sources of farm income other than wheat and livestock had not been overlooked.

Attempts to measure the well being of farmers by any arbitrary money standard are makeshifts at best. Under the highly commercialized one-crop systems of farming which prevail over much of Montana, a gross income of $1,000 seldom leaves a net figure of more than half this amount. Under Montana conditions $500 can hardly be considered adequate for the necessary food, clothing, shelter, life insurance, medical care, and education that most farm families require.

Planning committees have a two-fold responsibility - (1) that of planning for remedying the present situation and (2) that of planning for a more stable future. While a number of the farms shown by these maps to be in the low-income group, have worked out temporary ways of getting by, the planner will be interested in working toward more permanent adjustments.

Of What Use is This Story?

These maps may be considered as tools that are available to county planning groups in Montana. If properly used, the maps may aid farmers in coming to a better understanding of their mutual problems as a basis for moving toward their solution. If left unused, they will be of no greater value than the cultivator lying idle in the shed.

The Montana Agricultural Experiment Station is issuing a series of mimeographed circulars containing statistical material resulting from this study. This series will be helpful when planning groups are considering such questions as what constitutes an economic unit, what are the ranges in wheat-yield possibilities in a given locality, what is the present situation with respect to farm sizes, etc. Mimeographed Circular No. 10 supplementing Bulletin 367 on Area VII and No. 13 on Area IV are already available. That for Area III is now being prepared and the remaining three in the plains area (Areas I, V, and VI) will be made available shortly. It should be emphasized that the figures contained in these circulars portray conditions as found in each of the 62 subareas into which the 6 large areas shown on the frontispiece have been divided. Thus local groups can be supplied with statistics that apply to their own localities.

Each of the maps that follow has a negative number in the lower right-hand corner. These maps can be supplied by the Bureau of Agricultural Economics in greatly enlarged size for wall use in county planning meetings. With these considerations in mind, it is hoped that the maps, the statistical tables, and the printed bulletins resulting from this series of studies will serve as a rallying point for farmer discussion, and thus aid in laying the ground work for attainment of the objectives of farm stability, prosperity, and fuller enjoyment of life.

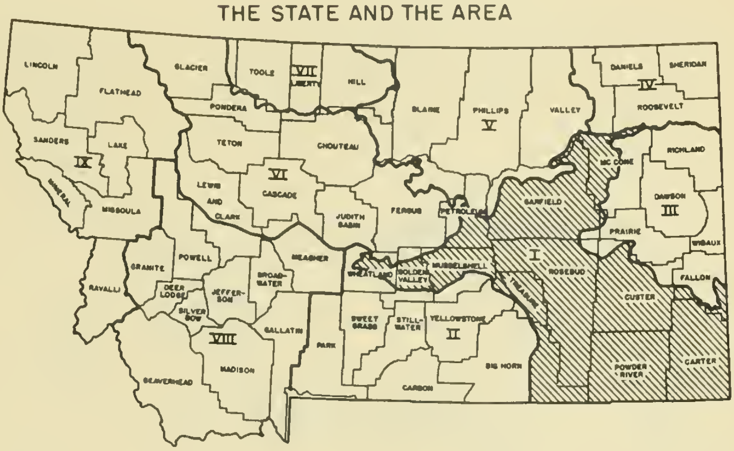
NUMBER OF FARM AND RANCH UNITS BY TYPE OF FARM AND PROBABLE INCOME CLASSIFICATION, PLAINS AREA OF MONTANA

(CROP DATA FOR THE PERIOD 1928-35, LIVESTOCK DATA FOR 1933. FARMS ON IRRIGATION PROJECTS EXCLUDED)

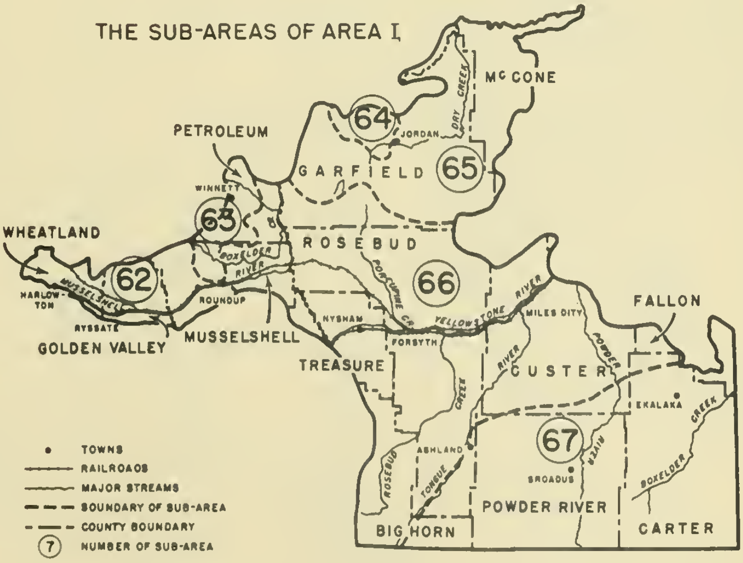
Area and subarea	Wheat farms with gross income expectancy of:				Combination farms with gross income expectancy of:				Ranches or livestock farms with gross income expectancy of:				Total all farms
	$1,000 or less	$1,001-2,000	Over $2,000	Total	$1,000 or less	$1,001-2,000	Over $2,000	Total	$1,000 or less	$1,001-2,000	Over $2,000	Total	
Area I	176	56	69	290	157	143	130	430	1,380	735	1,111	3,226	3,946
Subarea 62	33	2	1	36	11	13	11	35	75	44	60	179	230
63	14	0	3	17	7	2	2	11	26	19	19	64	92
64	25	10	3	38	21	13	5	39	16	3	4	23	100
65	34	11	3	48	54	50	40	144	209	127	163	499	691
66	55	24	43	122	40	41	45	126	301	196	378	1,075	1,323
67	14	9	6	29	24	24	27	76	553	346	487	1,386	1,490
Area III	700	437	422	1,559	359	499	470	1,328	601	323	407	1,331	4,218
Subarea 10	92	44	33	169	36	24	13	73	16	13	9	37	279
11	71	26	16	113	17	12	18	47	12	9	10	31	191
12	85	26	26	137	81	82	62	225	83	39	74	196	558
13	56	64	63	183	16	16	25	57	17	7	8	32	272
14	74	47	42	163	40	48	30	138	18	13	23	54	355
16	44	67	68	169	13	47	70	130	33	6	19	58	357
17	36	25	20	80	11	30	27	68	22	2	5	29	177
18	115	63	50	228	76	104	71	251	315	170	186	671	1,130
19	73	54	54	181	50	78	76	204	62	44	46	142	527
20	65	31	50	136	19	58	58	135	34	20	27	81	352
Area IV	1,247	736	611	2,594	347	354	204	905	346	123	114	583	4,082
Subarea 1	33	12	1	46	23	27	9	59	45	12	7	64	169
2	317	217	163	697	125	112	40	277	87	30	22	139	1,113
3	63	23	18	104	25	46	29	100	43	17	23	83	287
4	124	45	31	200	32	32	13	77	55	20	12	87	364
5	27	38	51	116	6	8	9	22	5	4	0	9	147
6	233	166	178	577	33	43	43	139	36	12	11	59	775
7	168	83	58	309	30	41	30	101	49	13	29	91	501
8	94	73	52	219	29	24	18	71	15	9	0	24	314
9	188	79	69	326	26	21	13	59	11	6	10	27	412
Area V	396	234	229	859	136	166	129	431	518	320	421	1,259	2,549
Subarea 21	47	38	30	115	11	12	7	30	10	4	8	22	167
22	23	9	31	63	4	3	1	8	7	3	5	15	86
23	56	28	15	99	33	28	17	78	226	123	122	471	648
24	106	42	25	173	43	33	26	102	48	37	52	137	412
26	20	15	7	42	2	7	10	19	9	3	13	25	86
27	38	19	11	68	21	27	15	63	7	12	12	31	162
28	24	39	49	112	3	12	15	30	10	3	3	16	158
29	43	20	24	87	14	24	14	52	69	46	60	175	314
30	14	16	33	63	2	6	11	19	21	7	14	42	124
31	25	8	4	37	3	14	13	30	111	82	132	325	392
Area VI	685	693	1,631	3,009	160	254	452	866	721	437	688	1,846	5,721
Subarea 39	46	16	34	96	22	12	23	67	168	99	225	492	645
41	6	23	78	107	1	8	17	26	9	3	8	20	153
43	47	64	225	336	3	10	9	22	31	10	7	48	406
45	72	73	290	435	6	13	42	61	27	12	22	61	557
46	64	30	69	183	13	20	53	86	44	22	37	103	372
47	49	49	71	169	5	10	5	20	1	0	1	2	191
48	6	26	122	154	1	0	7	8	5	5	6	16	178
49	41	32	76	149	3	6	19	28	1	2	4	7	184
50	4	13	37	54	0	0	2	2	6	0	1	6	62
51	4	6	7	17	1	2	7	10	26	17	35	77	104
52	71	68	107	246	24	40	70	134	73	69	98	240	620
33	13	12	12	37	8	4	16	28	67	64	89	220	285
54	39	25	30	94	14	18	23	55	27	17	11	55	204
55	96	159	417	672	7	28	75	110	29	15	21	65	847
56	43	23	15	81	14	22	15	51	18	6	7	31	163
57	23	26	29	78	11	17	38	66	27	16	12	55	199
58	21	6	2	29	10	17	3	30	23	8	7	38	97
59	1	2	0	3	0	2	3	6	34	13	20	67	75
60	32	16	8	56	14	22	23	59	43	17	28	88	203
61	7	4	2	13	3	3	2	8	64	42	49	155	176
Area VII	318	345	516	1,179	66	91	137	294	255	103	172	530	2,003
Subarea 32	49	43	34	126	12	15	11	38	10	5	4	19	183
33	30	36	55	121	3	8	12	23	13	5	4	22	166
34	68	101	202	371	6	8	11	25	18	6	7	31	427
35	76	60	63	199	26	18	26	70	50	19	18	87	356
36	61	66	107	233	10	20	22	62	45	16	21	82	367
37	4	0	6	9	3	2	3	8	30	19	52	101	118
38	30	40	50	120	6	20	62	78	89	33	66	188	386
Total six areas	3,521	2,301	3,468	9,490	1,225	1,307	1,522	4,254	3,821	2,041	2,913	8,775	22,519

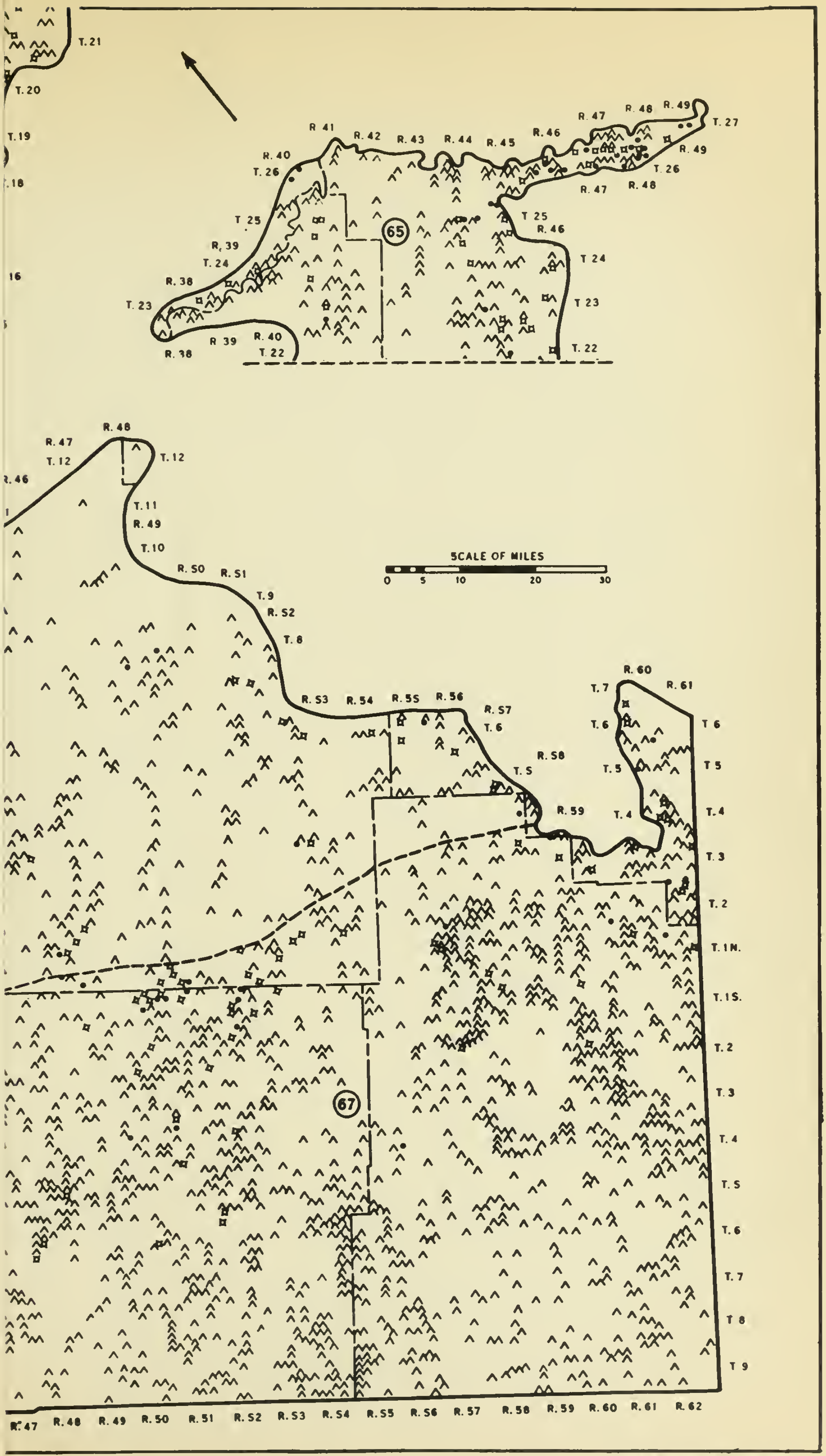
AIDS TO PLANNING
AREA I MONTANA

THE STATE AND THE AREA



THE SUB-AREAS OF AREA I





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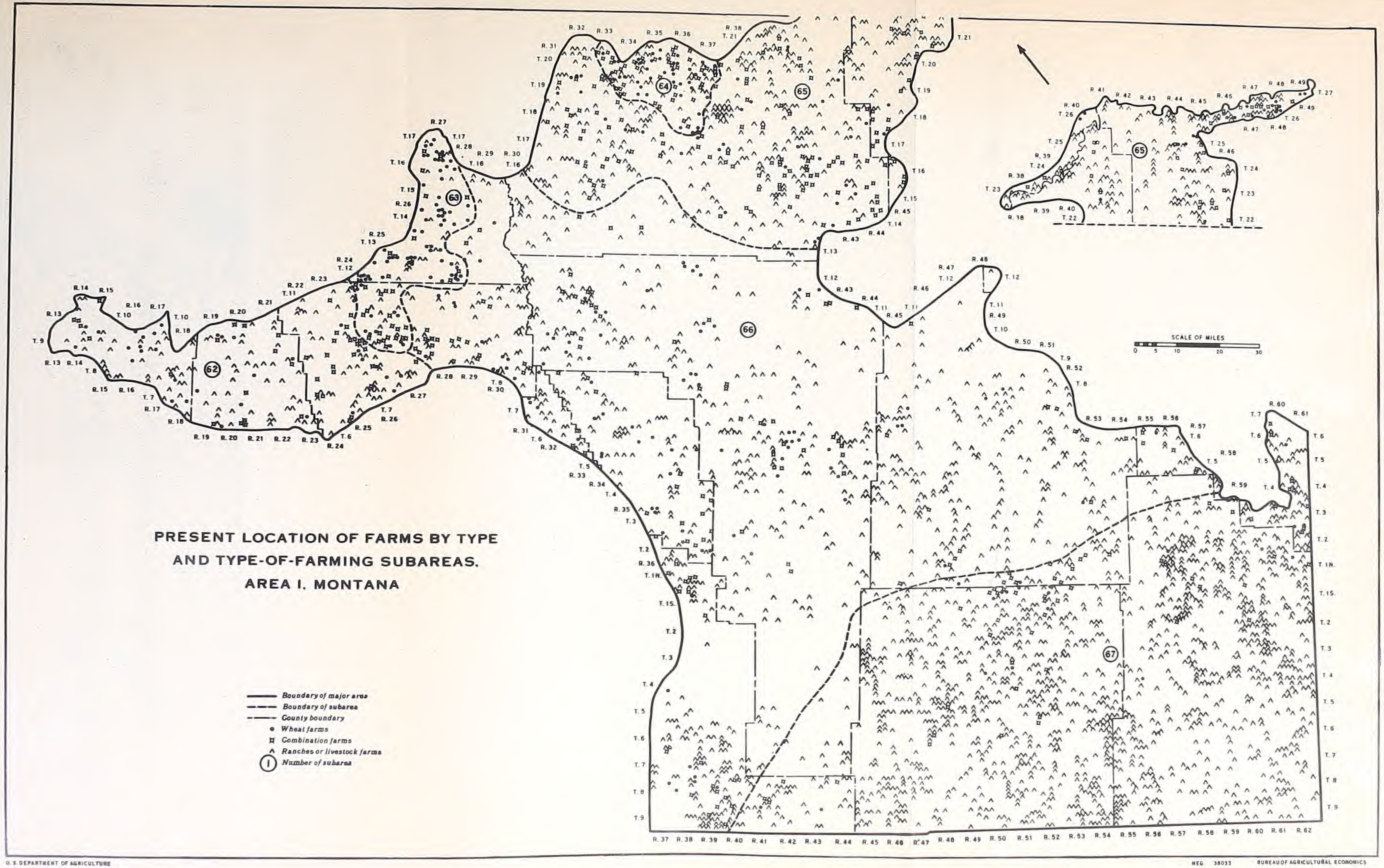


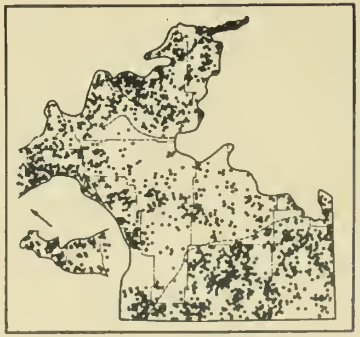
PRESENT LOCATION OF FARMS BY TYPE
AND TYPE-OF-FARMING SUBAREAS.
AREA I, MONTANA

U. S. DEPARTMENT OF AGRICULTURE

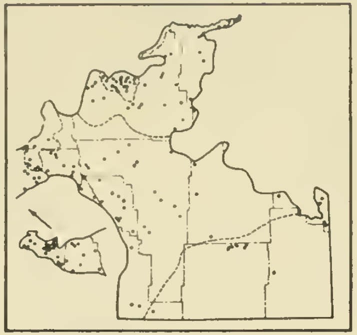
NEG. 38033 BUREAU OF AGRICULTURAL ECONOMICS

FARMS HAVING GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

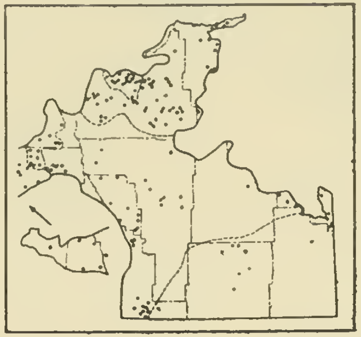
ALL FARMS



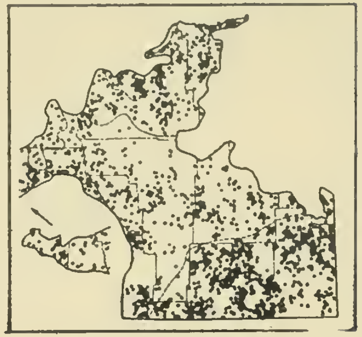
WHEAT FARMS



COMBINATION FARMS



LIVESTOCK FARMS AND RANCHES

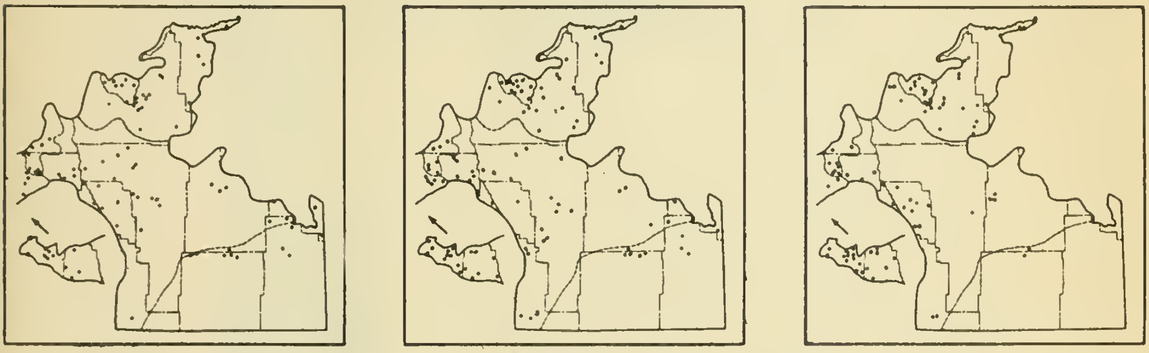


U. S DEPARTMENT OF AGRICULTURE NEG. 38027 BUREAU OF AGRICULTURAL ECONOMICS

MAJOR WEAKNESSES IN FACTORS AFFECTING INCOME ON FARMS WITH GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

WHEAT FARMS

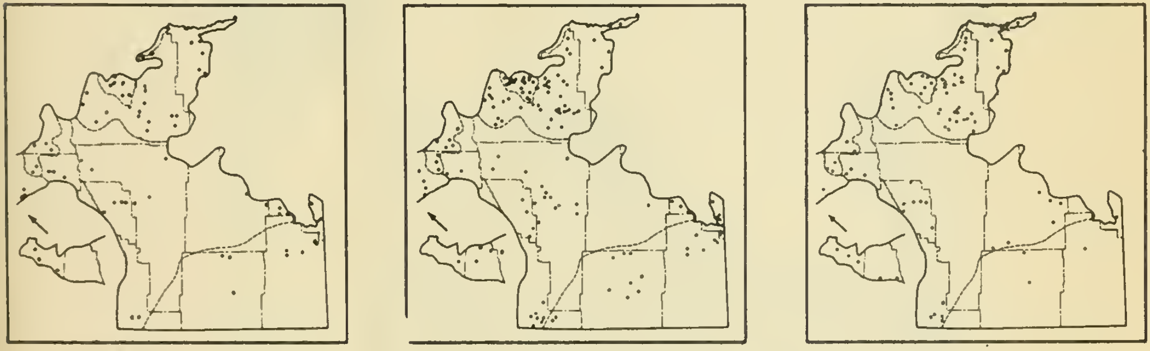
TOTAL ACRES OPERATED — ACRES SEEDED TO WHEAT — WHEAT YIELDS PER SEEDED ACRE



320 ACRES OR LESS — 100 ACRES OR LESS — LESS THAN 5 BUSHELS

COMBINATION FARMS

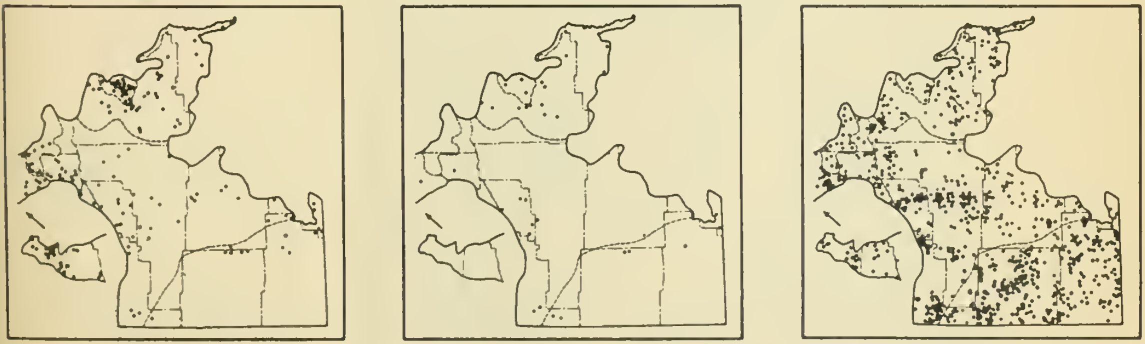
TOTAL ACRES OPERATED — ACRES SEEDED TO WHEAT — WHEAT YIELDS PER SEEDED ACRE



320 ACRES OR LESS — 100 ACRES OR LESS — LESS THAN 5 BUSHELS

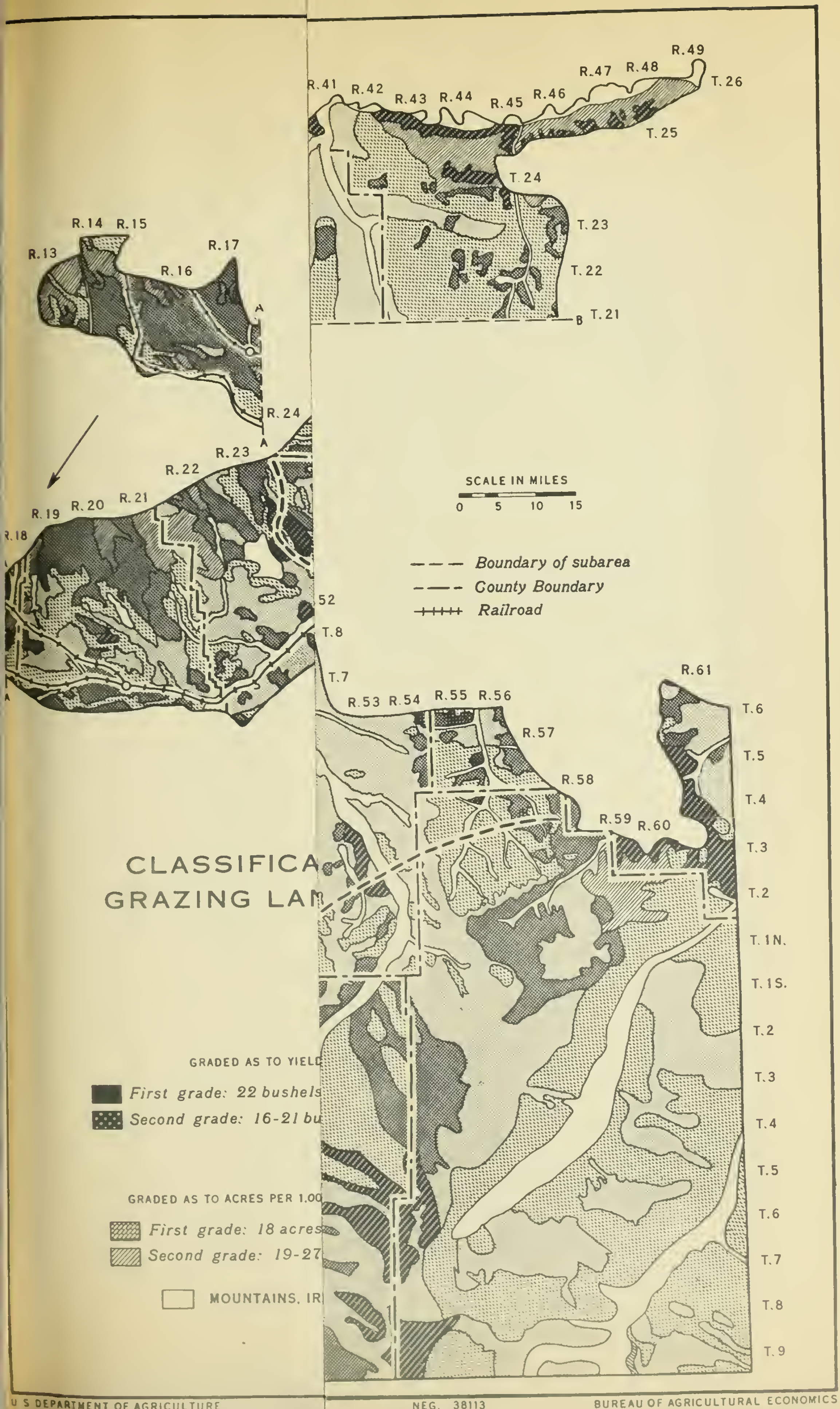
ANIMAL UNITS

WHEAT FARMS — COMBINATION FARMS — LIVESTOCK FARMS

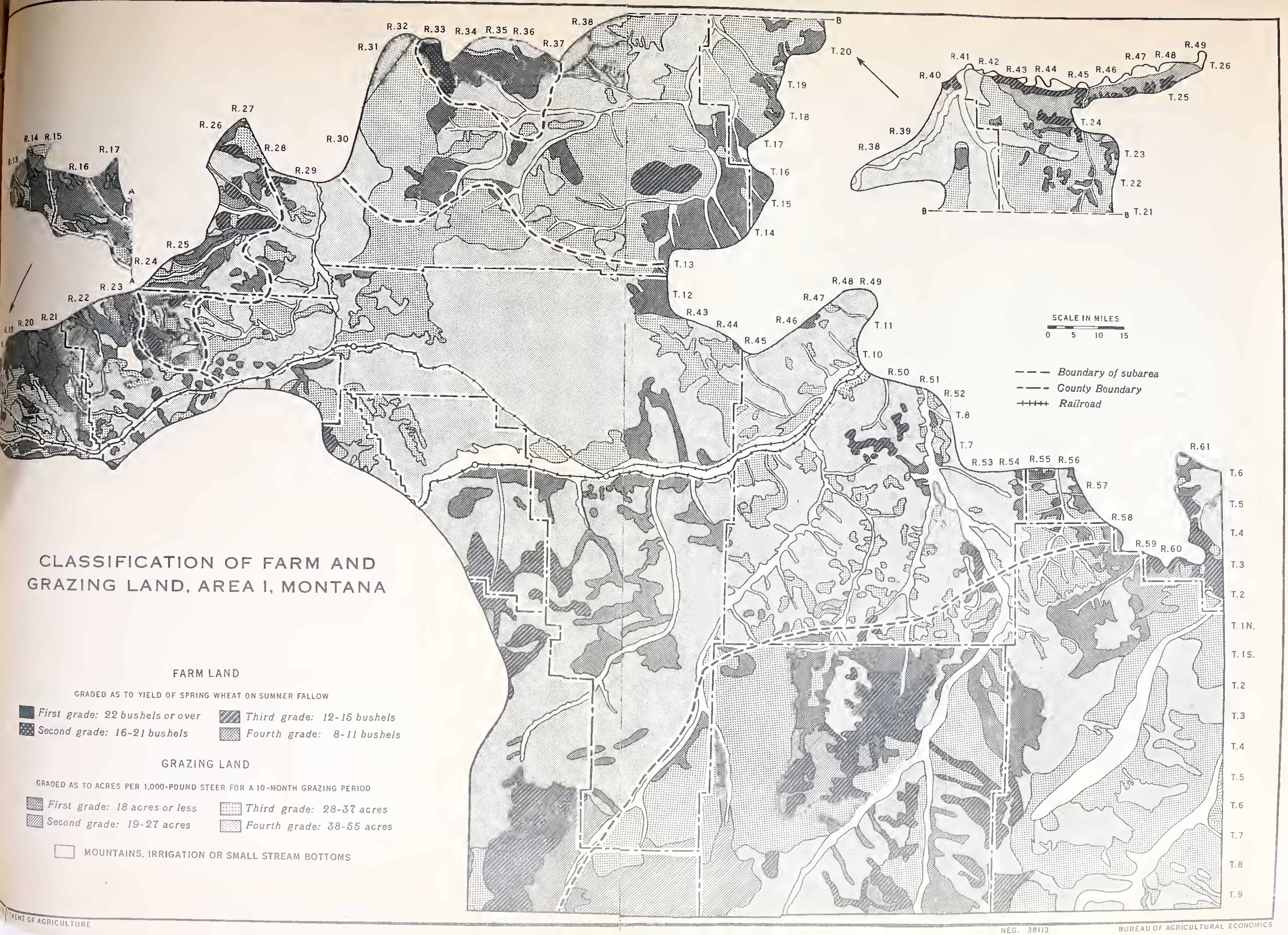


NO ANIMAL UNITS — 1-10 ANIMAL UNITS — 25 ANIMAL UNITS OR LESS

U. S. DEPARTMENT OF AGRICULTURE NEG. 38030 BUREAU OF AGRICULTURAL ECONOMICS



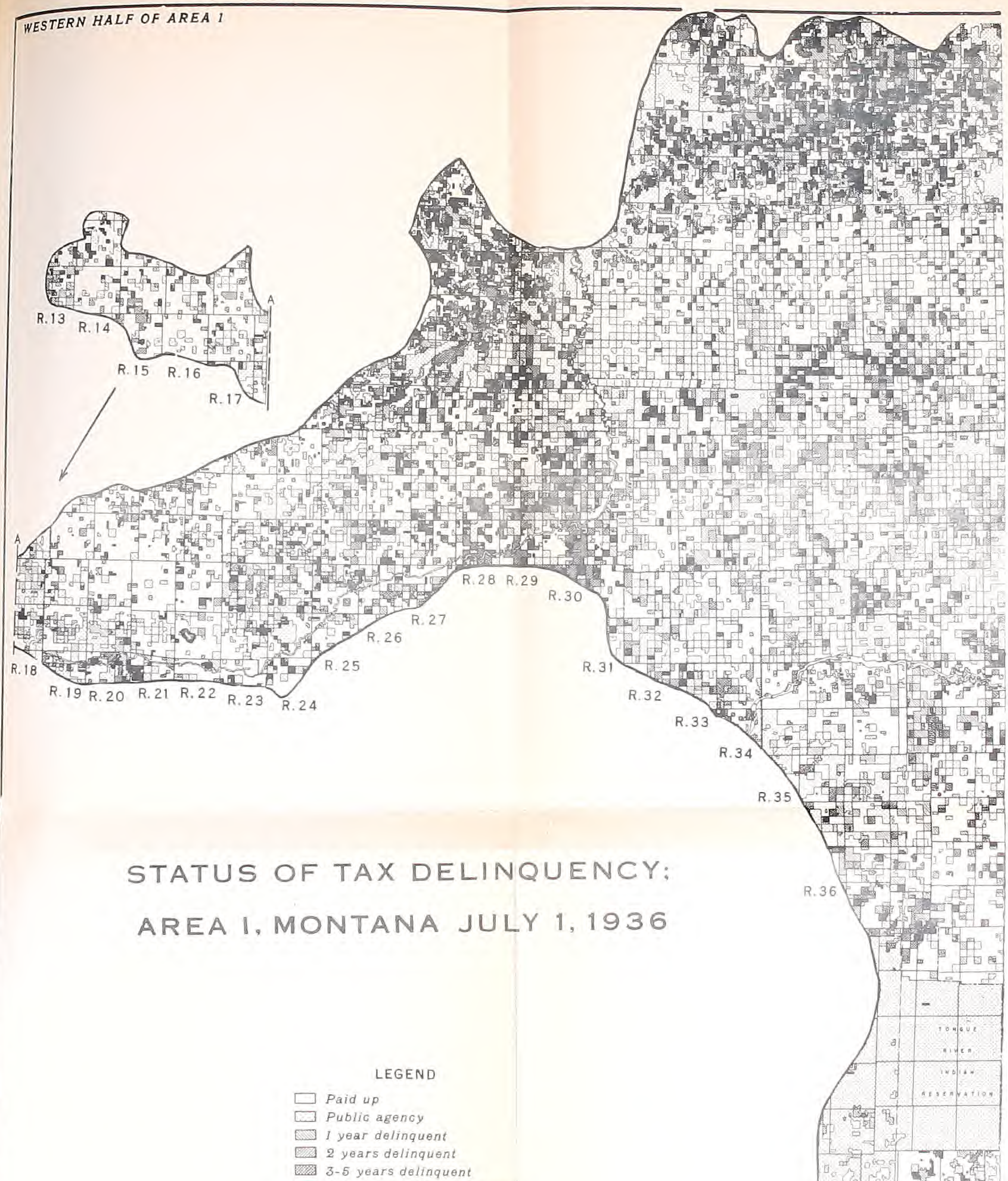
U S DEPARTMENT OF AGRICULTURE NEG. 38113 BUREAU OF AGRICULTURAL ECONOMICS



CLASSIFICATION OF FARM AND GRAZING LAND, AREA I, MONTANA

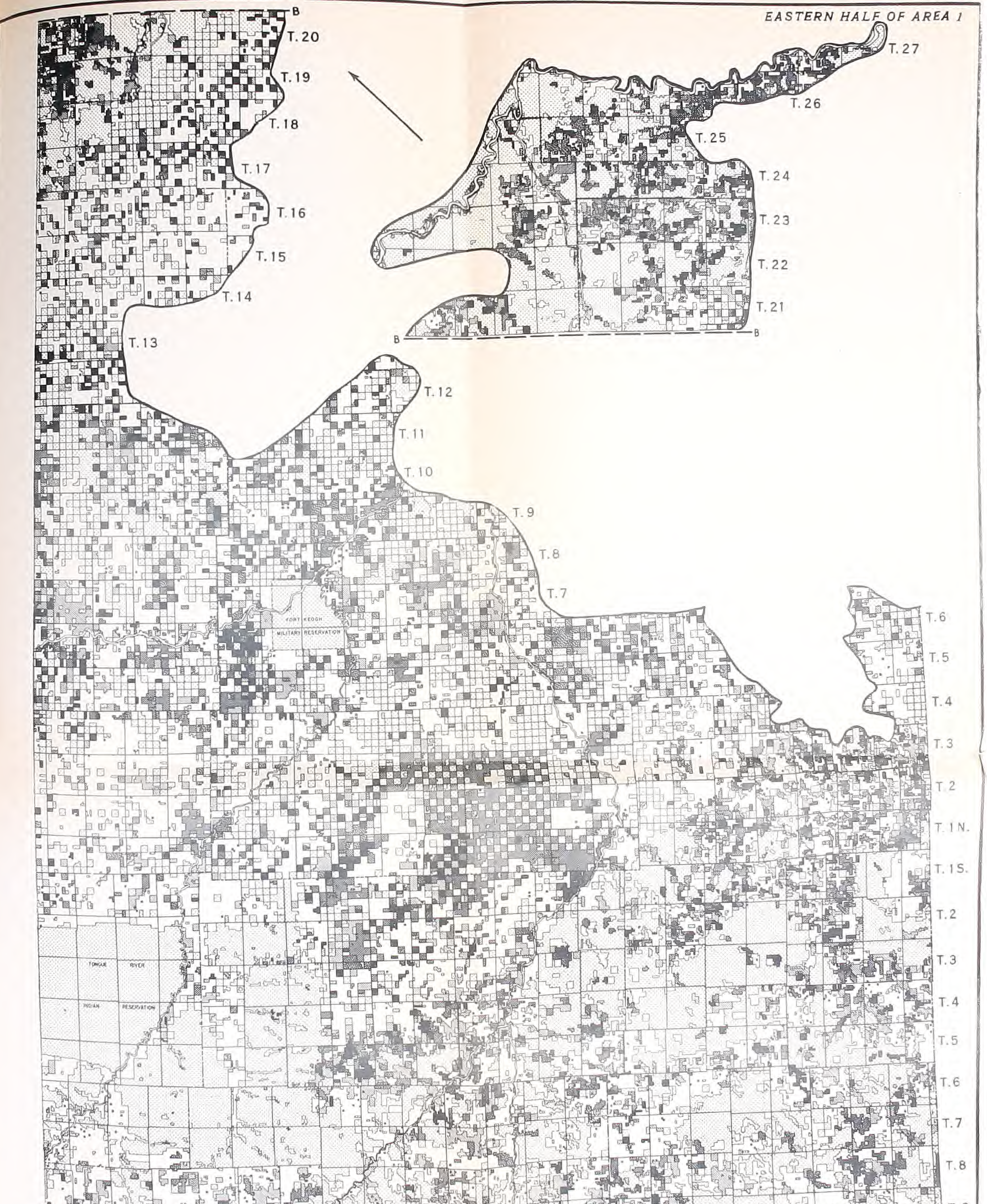
FARM LAND
GRADED AS TO YIELD OF SPRING WHEAT ON SUMMER FALLOW
First grade: 22 bushels or over
Second grade: 16-21 bushels
Third grade: 12-15 bushels
Fourth grade: 8-11 bushels
GRAZING LAND
GRADED AS TO ACRES PER 1,000-POUND STEER FOR A 10-MONTH GRAZING PERIOD
First grade: 18 acres or less
Second grade: 19-27 acres
Third grade: 28-37 acres
Fourth grade: 38-55 acres
MOUNTAINS, IRRIGATION OR SMALL STREAM BOTTOMS
SCALE IN MILES
0 5 10 15
Boundary of subarea
County Boundary
Railroad
R.13 R.14 R.15 R.16 R.17
R.19 R.20 R.21 R.22 R.23 R.24 R.25 R.26 R.27 R.28 R.29 R.30
R.31 R.32 R.33 R.34 R.35 R.36 R.37 R.38
R.38 R.39 R.40 R.41 R.42 R.43 R.44 R.45 R.46 R.47 R.48 R.49
R.43 R.44 R.45 R.46 R.47 R.48 R.49
R.50 R.51 R.52 R.53 R.54 R.55 R.56 R.57 R.58 R.59 R.60 R.61
T.26 T.25 T.24 T.23 T.22 T.21 T.20 T.19 T.18 T.17 T.16 T.15 T.14 T.13 T.12 T.11 T.10
T.8 T.7 T.6 T.5 T.4 T.3 T.2 T.1N. T.1S. T.2 T.3 T.4 T.5 T.6 T.7 T.8 T.9
A
A
B
B
B

MENT OF AGRICULTURE
NEG. 38113
BUREAU OF AGRICULTURAL ECONOMICS

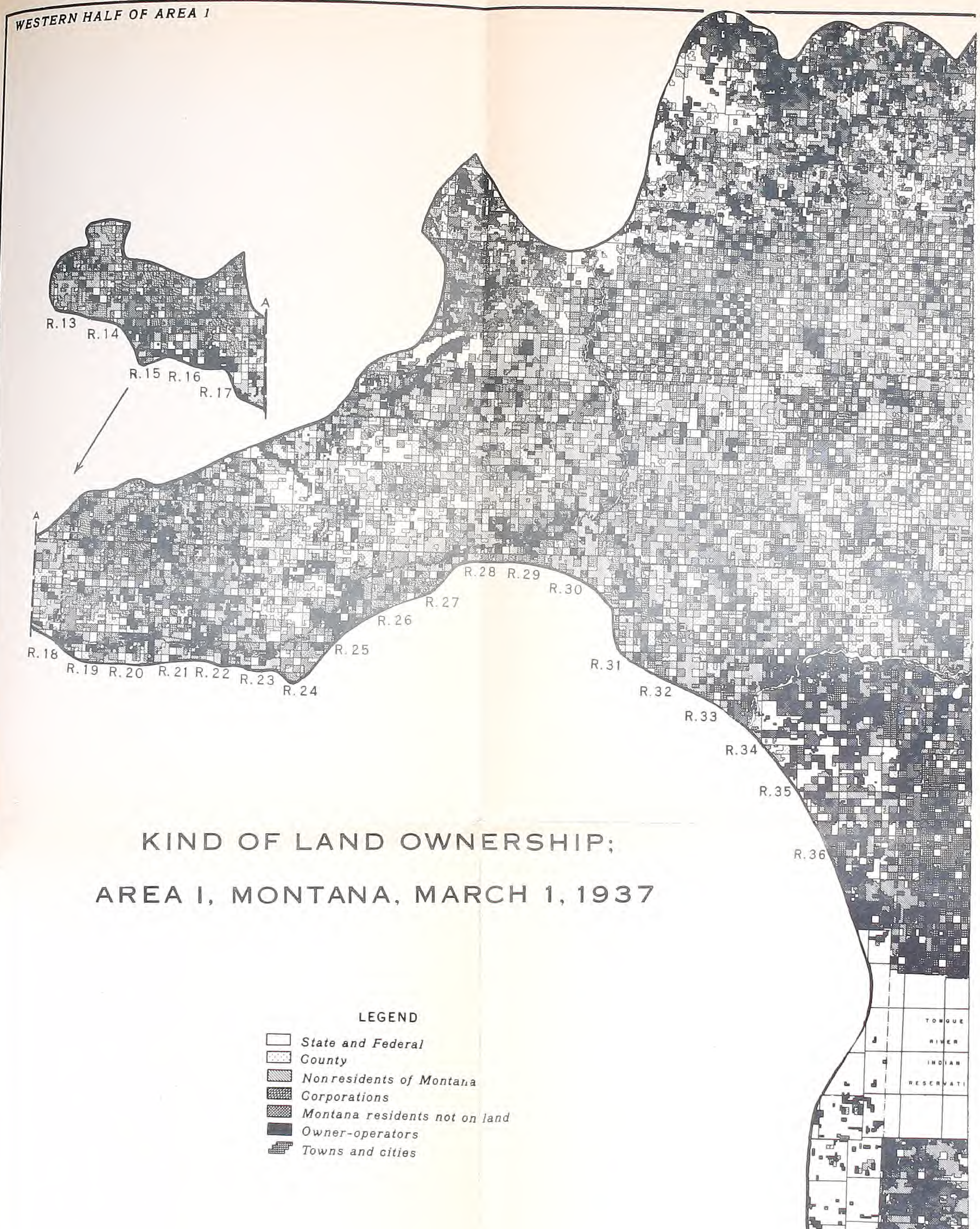


STATUS OF TAX DELINQUENCY: AREA I, MONTANA JULY 1, 1936

U. S. DEPARTMENT OF AGRICULTURE



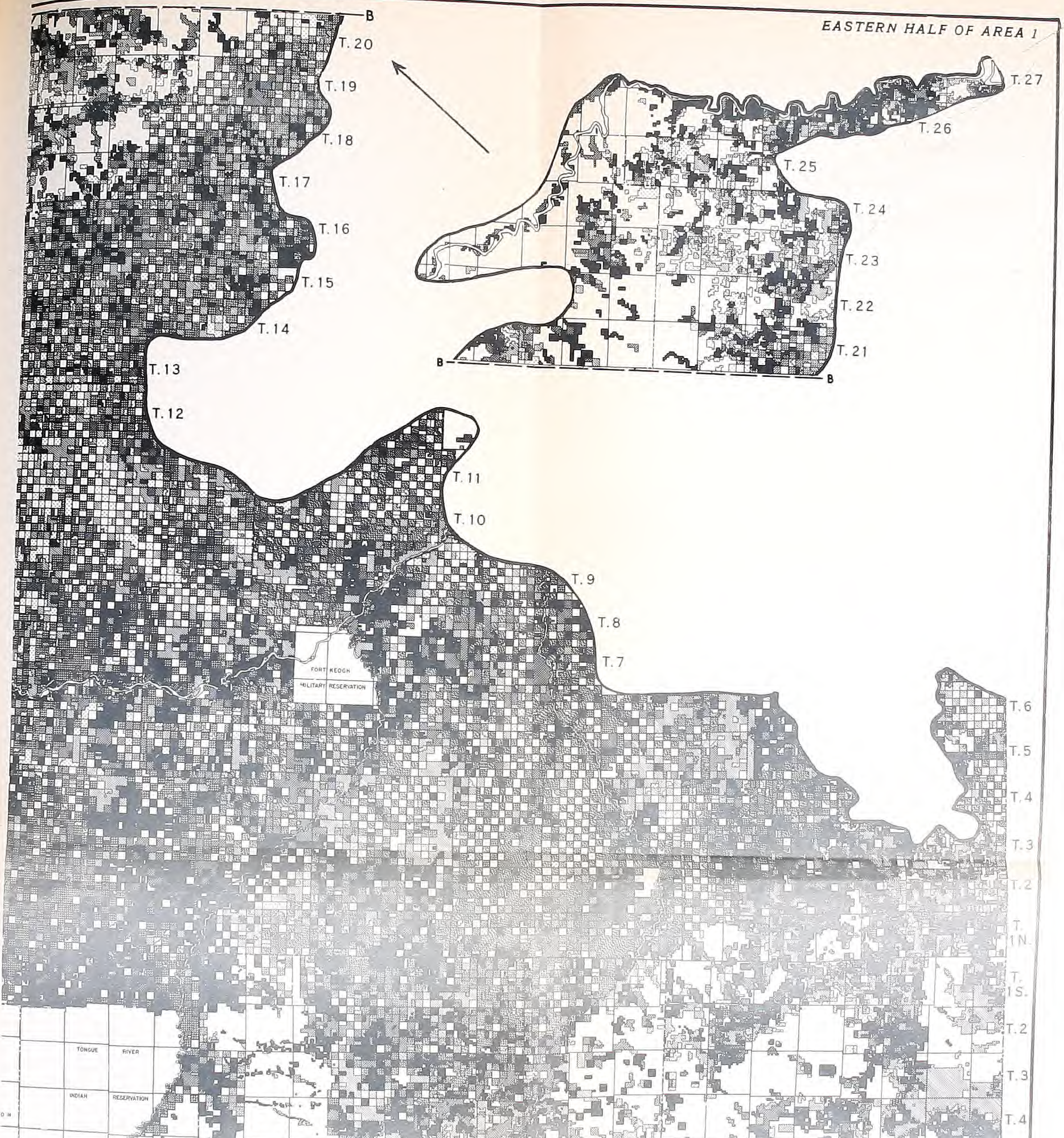
NEG. 38244 BUREAU OF AGRICULTURAL ECONOMICS



KIND OF LAND OWNERSHIP;

AREA I, MONTANA, MARCH 1, 1937

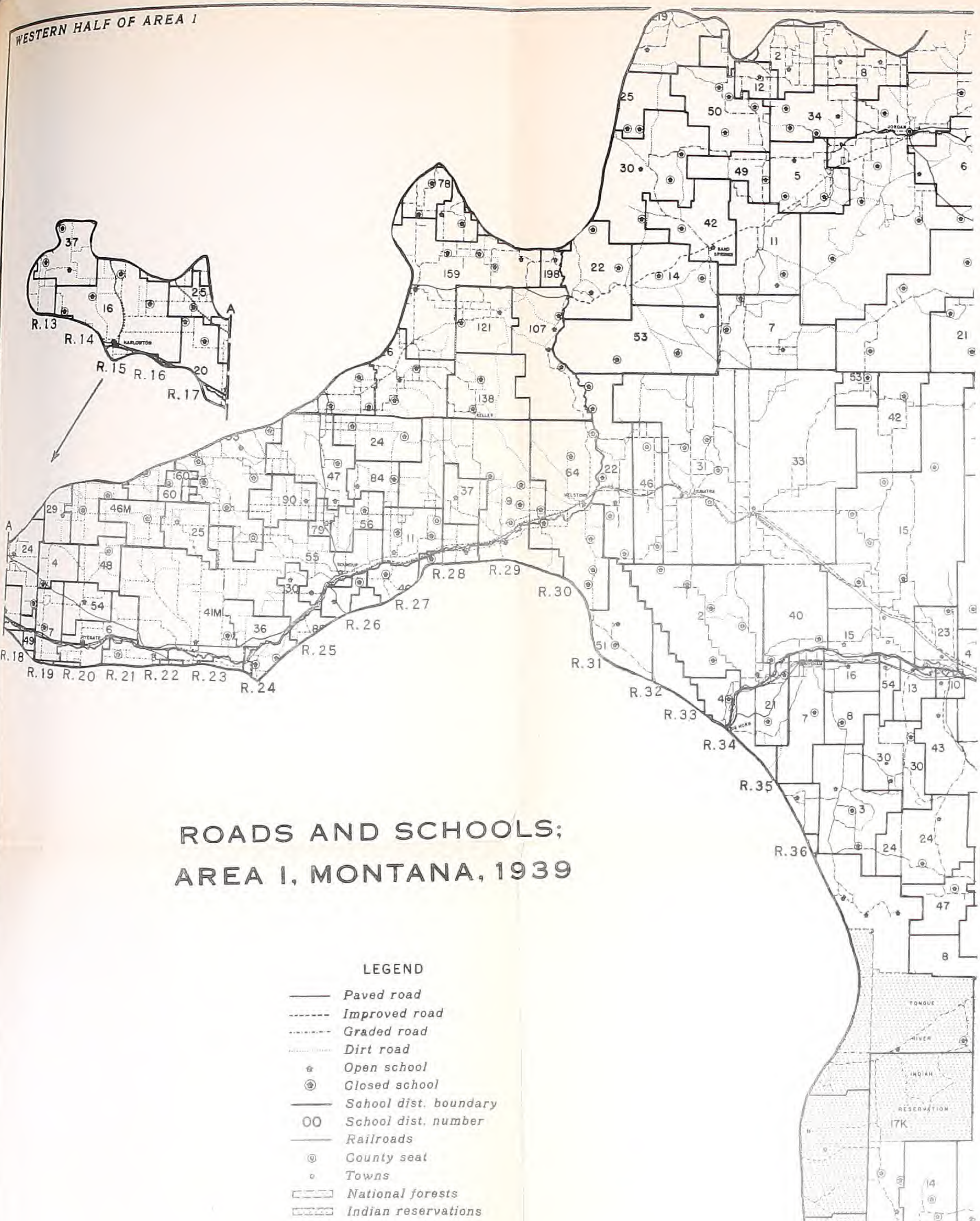
U. S. DEPARTMENT OF AGRICULTURE


EASTERN HALF OF AREA 1

NEG. 38241 BUREAU OF AGRICULTURAL ECONOMICS

WES

WESTERN HALF OF AREA 1



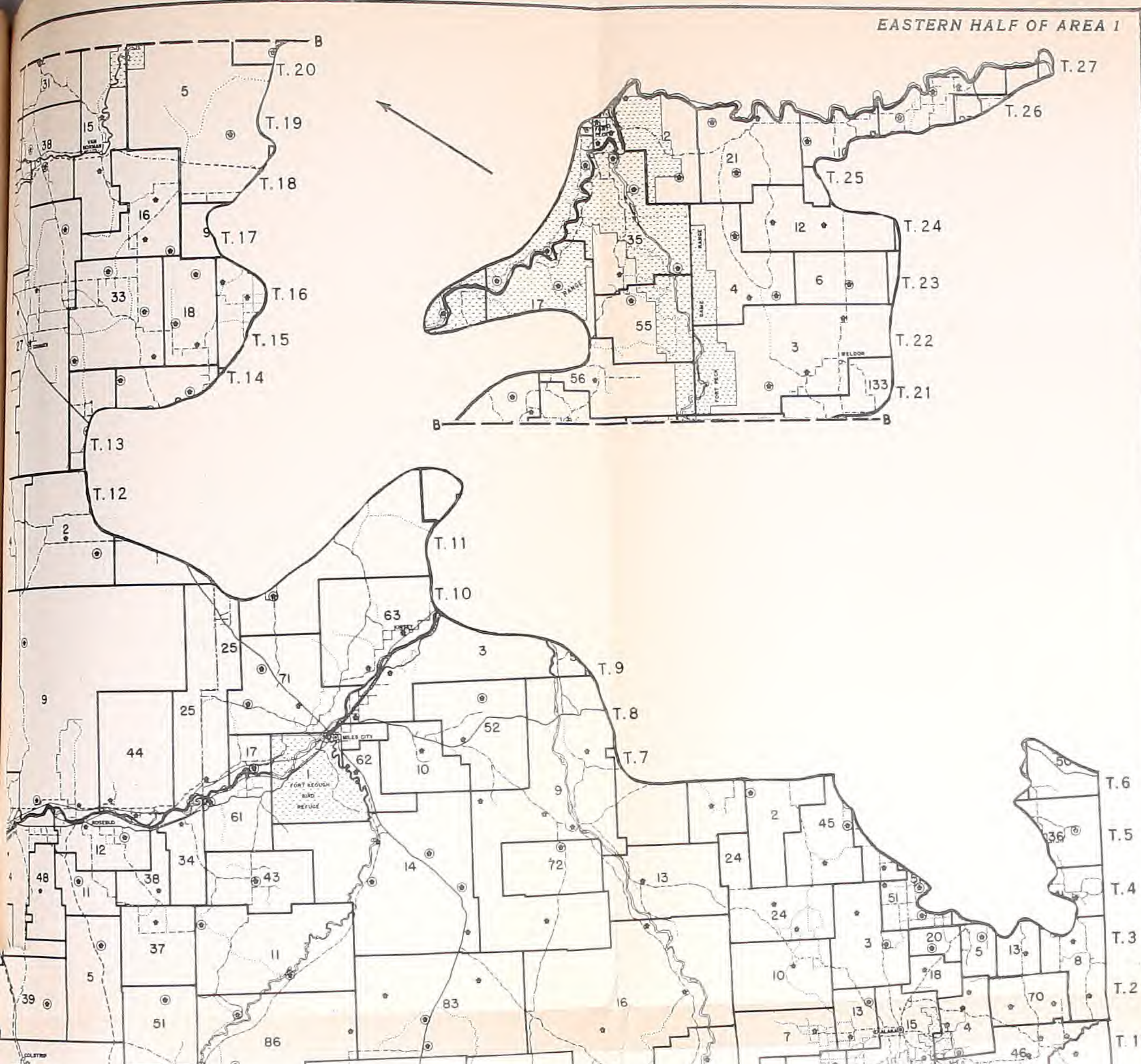
ROADS AND SCHOOLS; AREA I, MONTANA, 1939

LEGEND

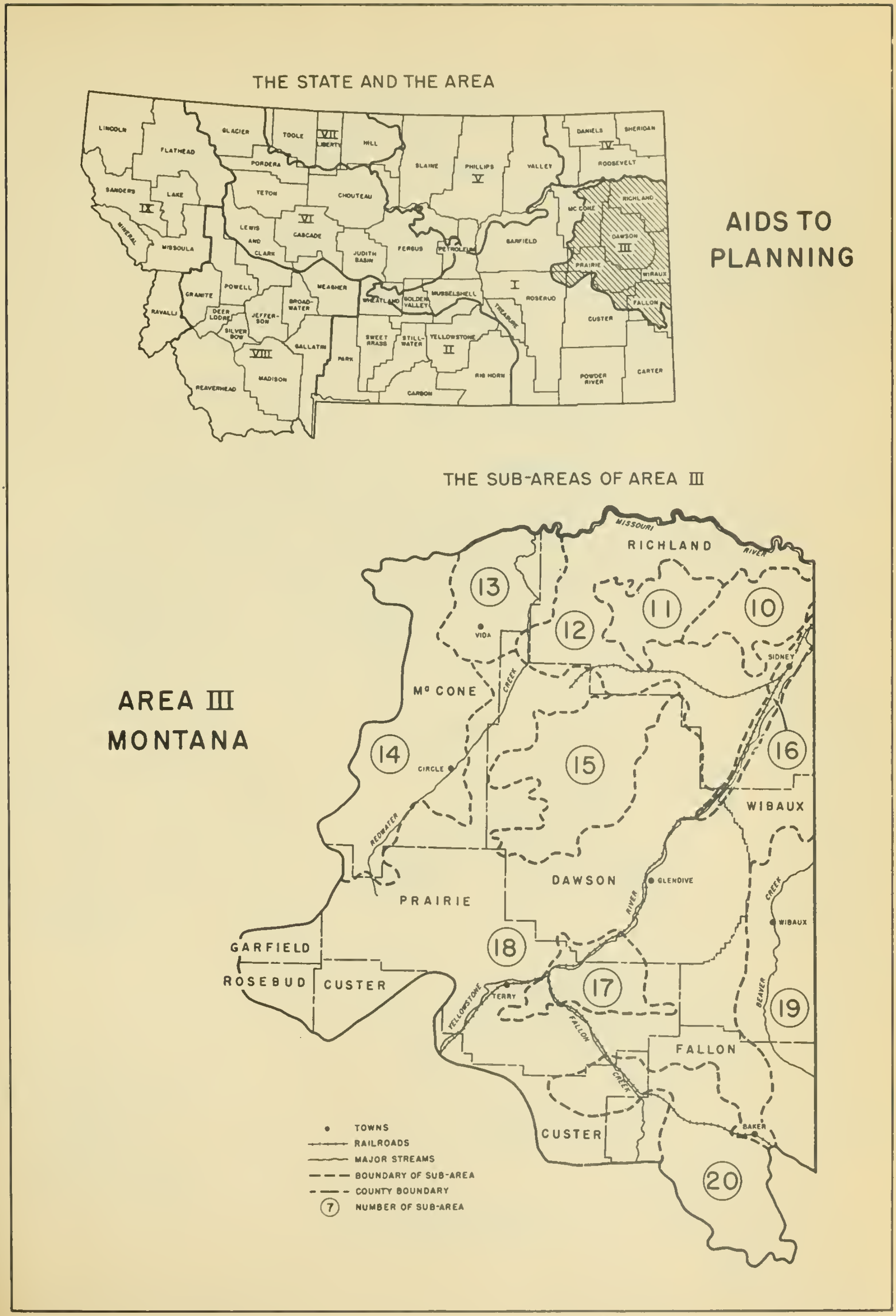
——— *Paved road*
------- *Improved road*
-·-·-·- *Graded road*
········ *Dirt road*
⚬ *Open school*
◎ *Closed school*
——— *School dist. boundary*
00 *School dist. number*
——— *Railroads*
◎ *County seat*
○ *Towns*
▭ *National forests*
▨ *Indian reservations*
▨ *Game preserve*

U. S. DEPARTMENT OF AGRICULTURE

31
38

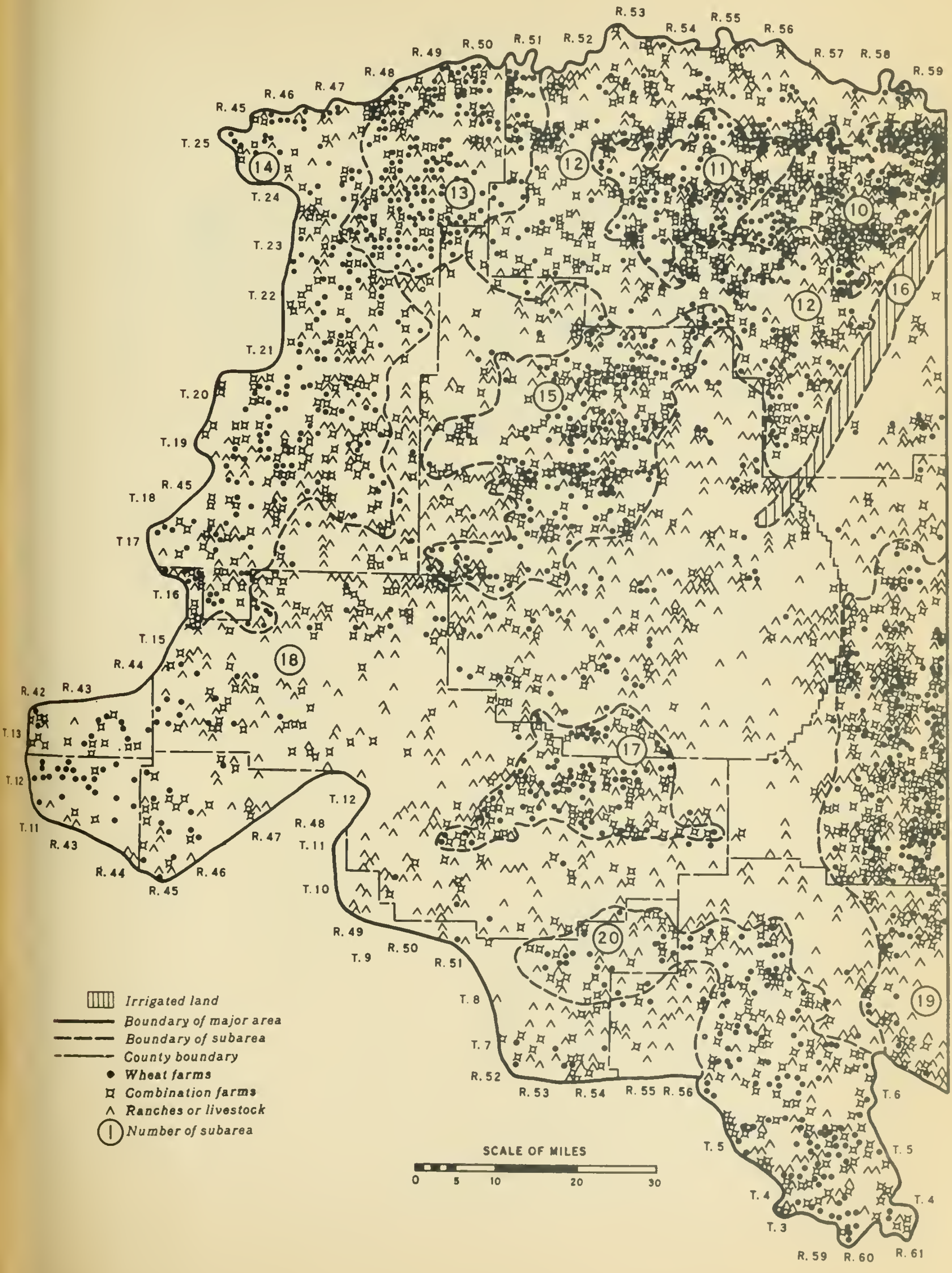

EASTERN HALF OF AREA 1

NEG. 38238 BUREAU OF AGRICULTURAL ECONOMICS



U. S. DEPARTMENT OF AGRICULTURE

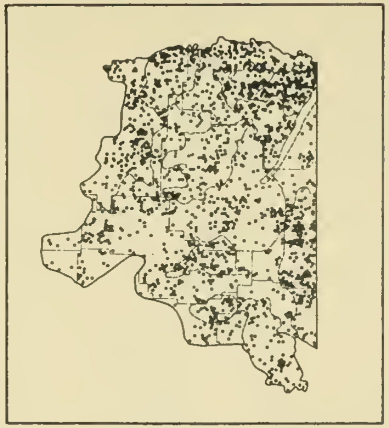
NEG. 38423 BUREAU OF AGRICULTURAL ECONOMICS



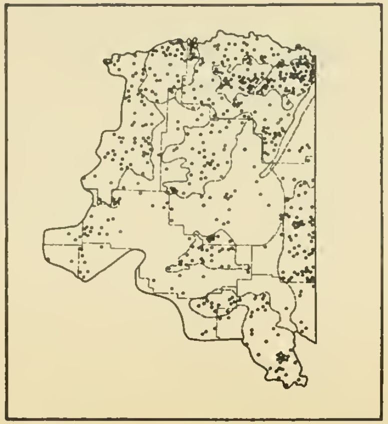
PRESENT LOCATION OF FARMS BY TYPE AND TYPE-OF-FARMING SUBAREAS, AREA III, MONTANA

FARMS HAVING GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

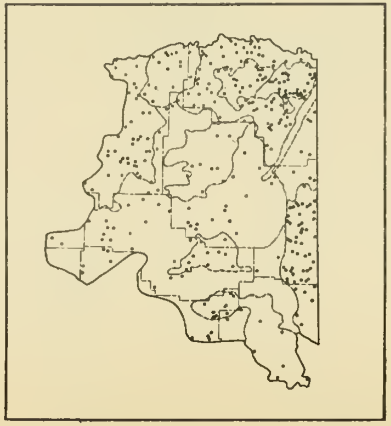
ALL FARMS



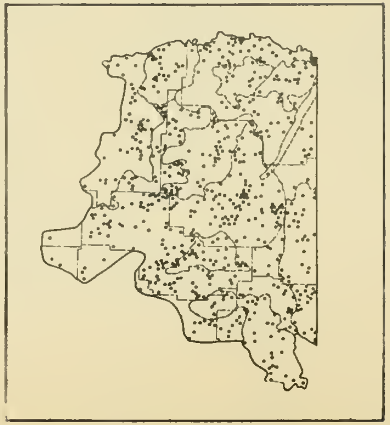
WHEAT FARMS



COMBINATION FARMS



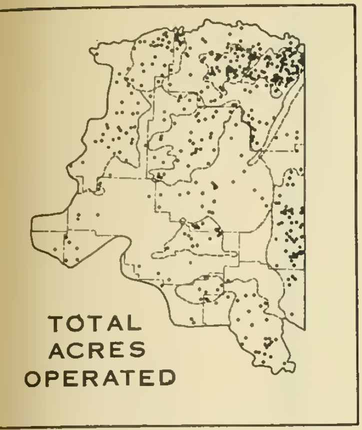
LIVESTOCK FARMS AND RANCHES



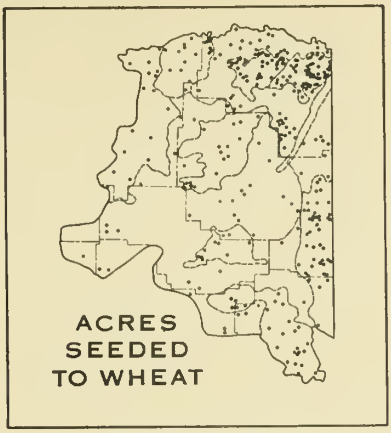
U. S. DEPARTMENT OF AGRICULTURE NEG. 38072 BUREAU OF AGRICULTURAL ECONOMICS

MAJOR WEAKNESSES IN FACTORS AFFECTING INCOME ON FARMS WITH GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

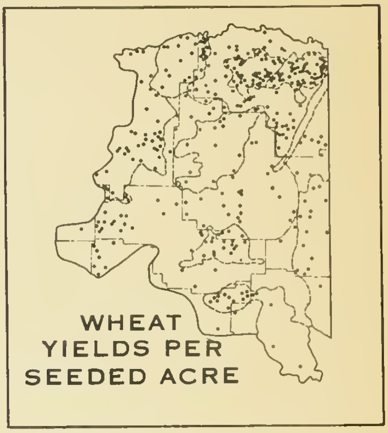
WHEAT FARMS



320 ACRES OR LESS

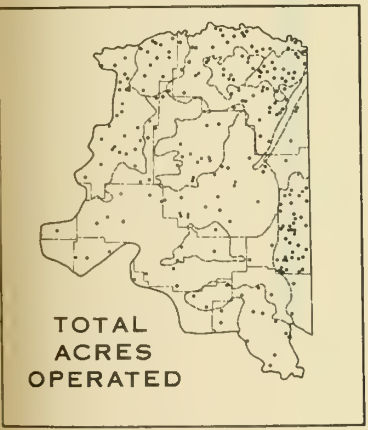


100 ACRES OR LESS

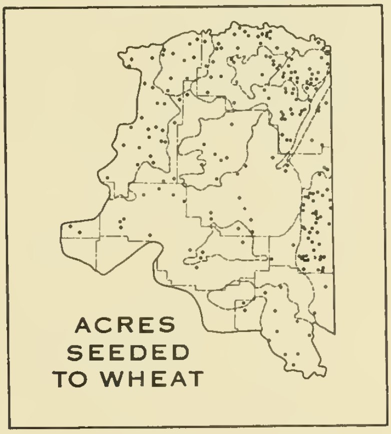


LESS THAN 5 BUSHELS

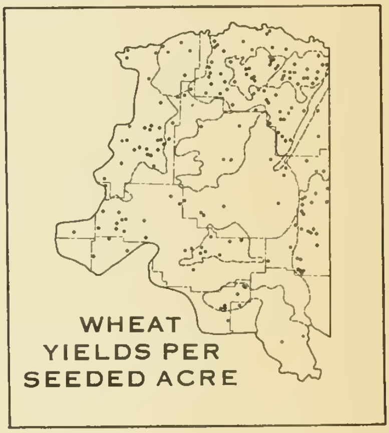
COMBINATION FARMS



320 ACRES OR LESS

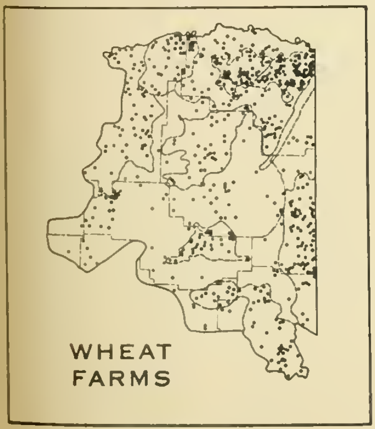


100 ACRES OR LESS

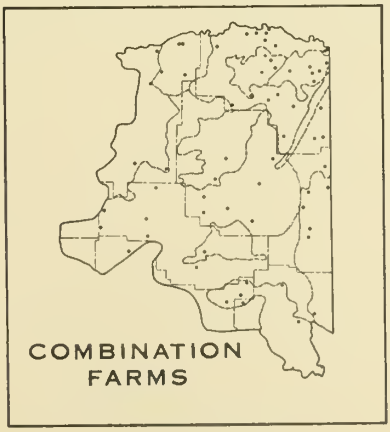


LESS THAN 5 BUSHELS

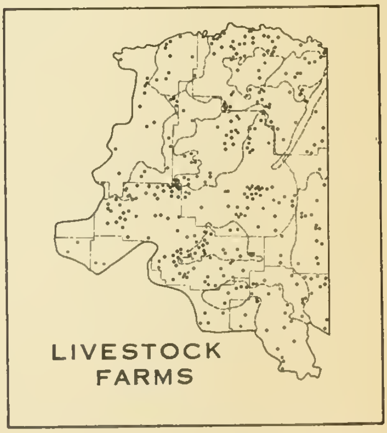
ANIMAL UNITS



NO ANIMAL UNITS

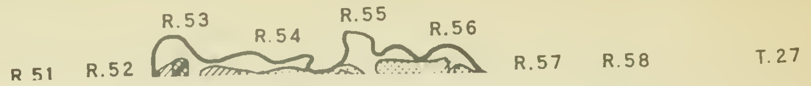


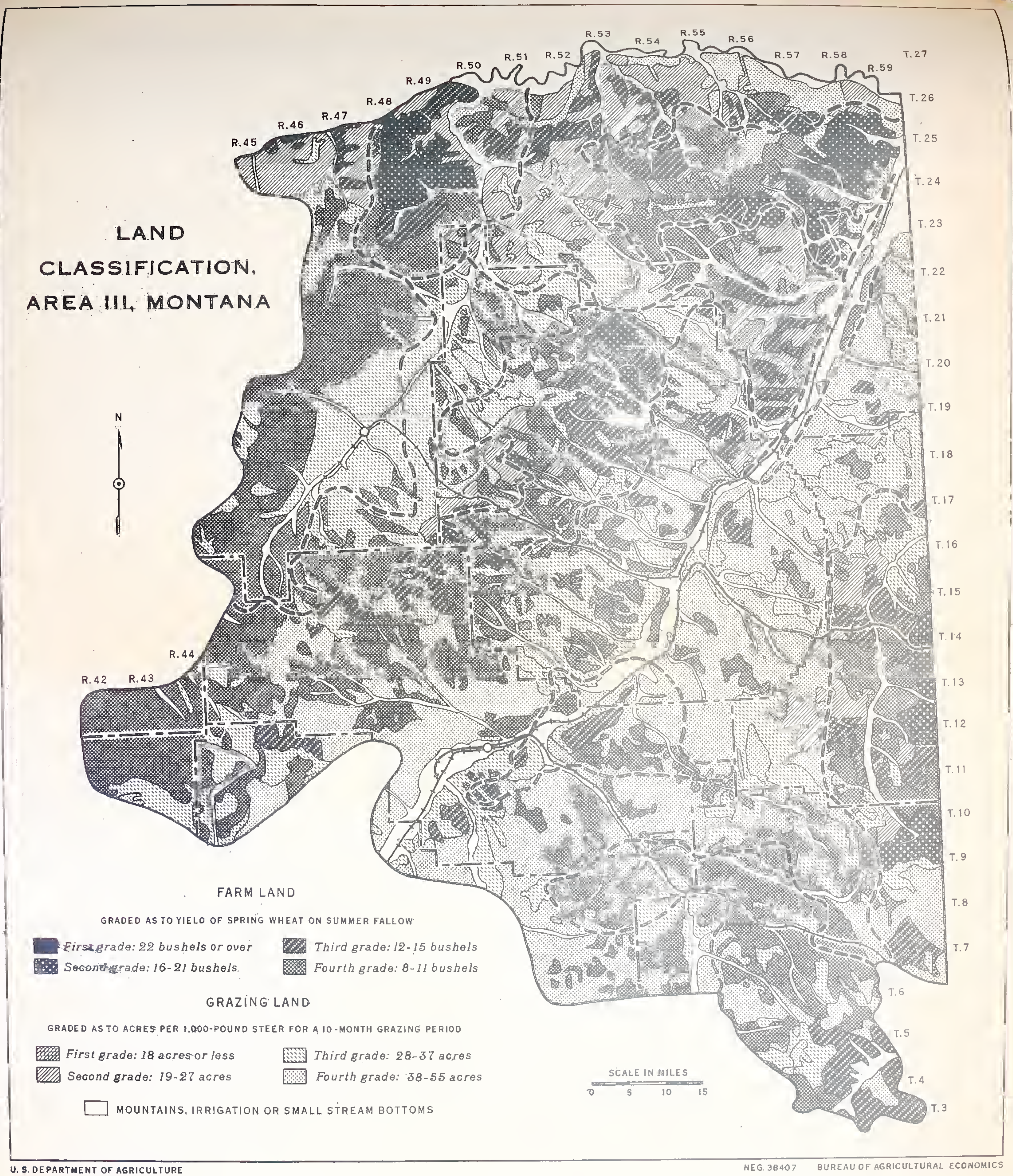
1-10 ANIMAL UNITS



25 ANIMAL UNITS OR LESS

U. S. DEPARTMENT OF AGRICULTURE NEG. 38395 BUREAU OF AGRICULTURAL ECONOMICS


R 51
R.52
R.53
R.54
R.55
R.56
R.57
R.58
T.27



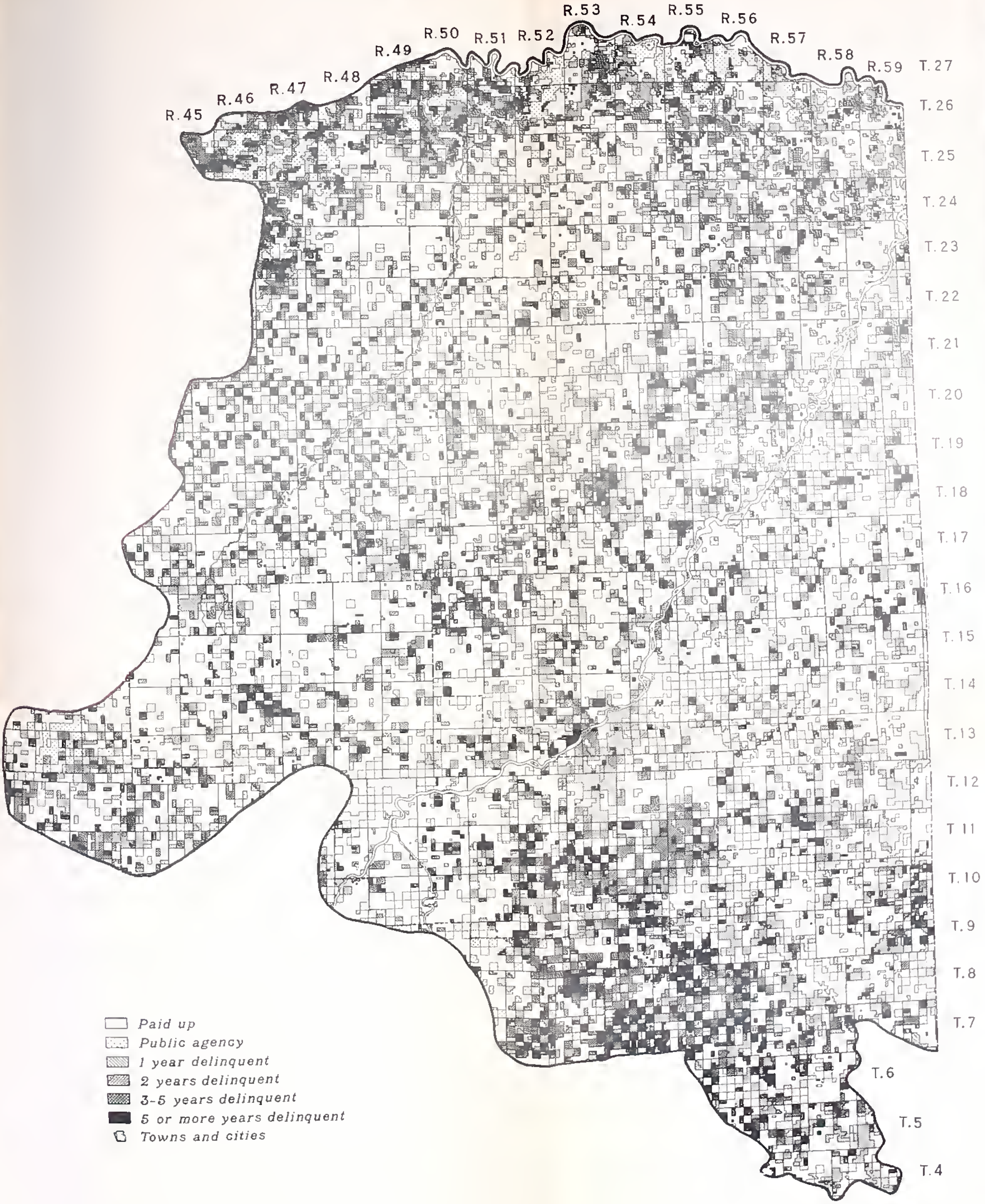
LAND CLASSIFICATION, AREA III, MONTANA

R.42
R.43
R.44
R.45
R.46
R.47
R.48
R.49
R.50
R.51
R.52
R.53
R.54
R.55
R.56
R.57
R.58
R.59
T.27
T.26
T.25
T.24
T.23
T.22
T.21
T.20
T.19
T.18
T.17
T.16
T.15
T.14
T.13
T.12
T.11
T.10
T.9
T.8
T.7
T.6
T.5
T.4
T.3
N
FARM LAND
GRADED AS TO YIELD OF SPRING WHEAT ON SUMMER FALLOW
First grade: 22 bushels or over
Second grade: 16-21 bushels
Third grade: 12-15 bushels
Fourth grade: 8-11 bushels
GRAZING LAND
GRADED AS TO ACRES PER 1,000-POUND STEER FOR A 10-MONTH GRAZING PERIOD
First grade: 18 acres or less
Second grade: 19-27 acres
Third grade: 28-37 acres
Fourth grade: 38-55 acres
MOUNTAINS, IRRIGATION OR SMALL STREAM BOTTOMS
SCALE IN MILES
0
5
10
15

U. S. DEPARTMENT OF AGRICULTURE

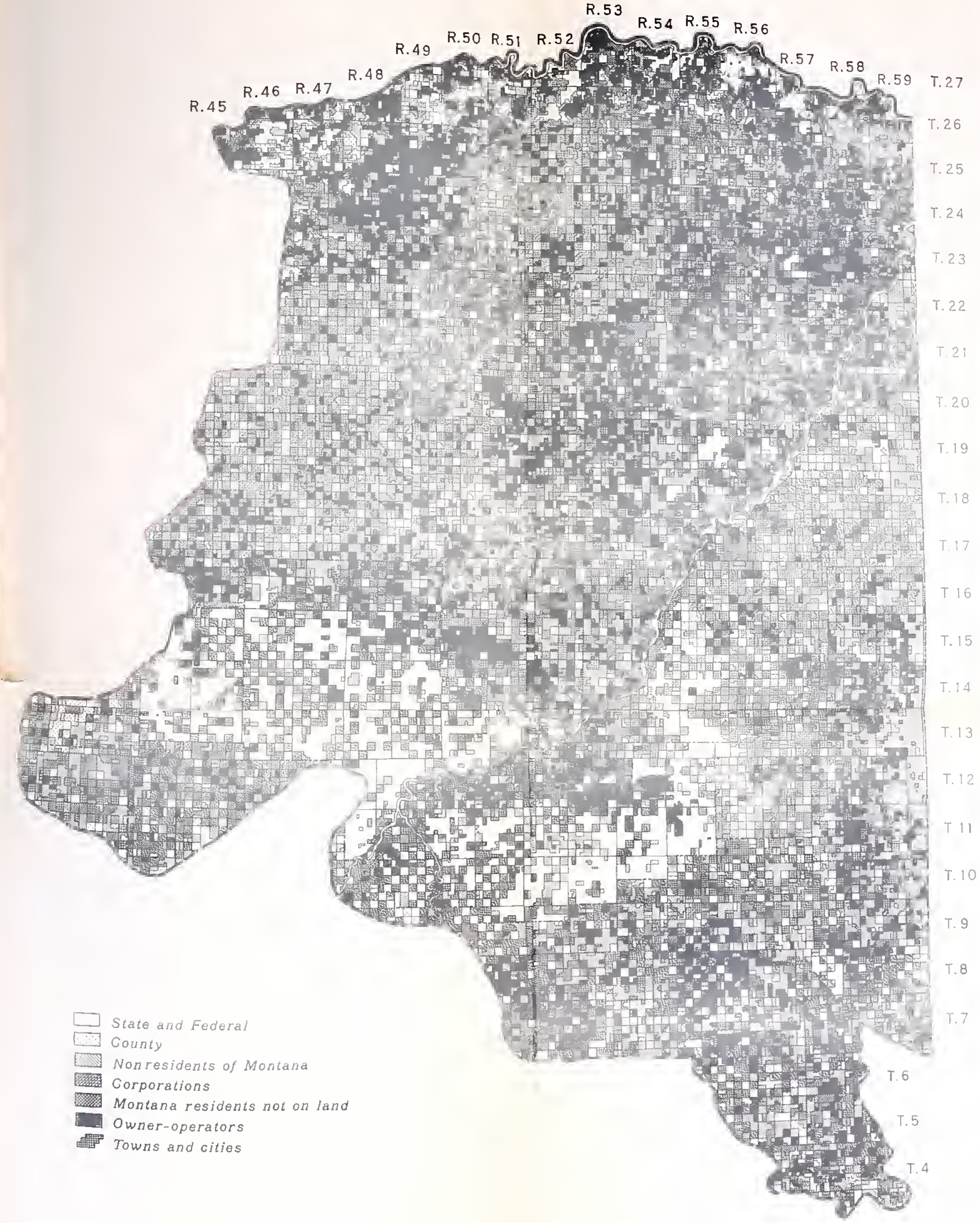
NEG. 38407 BUREAU OF AGRICULTURAL ECONOMICS

STATUS OF TAX DELINQUENCY: AREA III
MONTANA, JULY 1, 1936



U. S. DEPARTMENT OF AGRICULTURE NEG. 38153 BUREAU OF AGRICULTURAL ECONOMICS

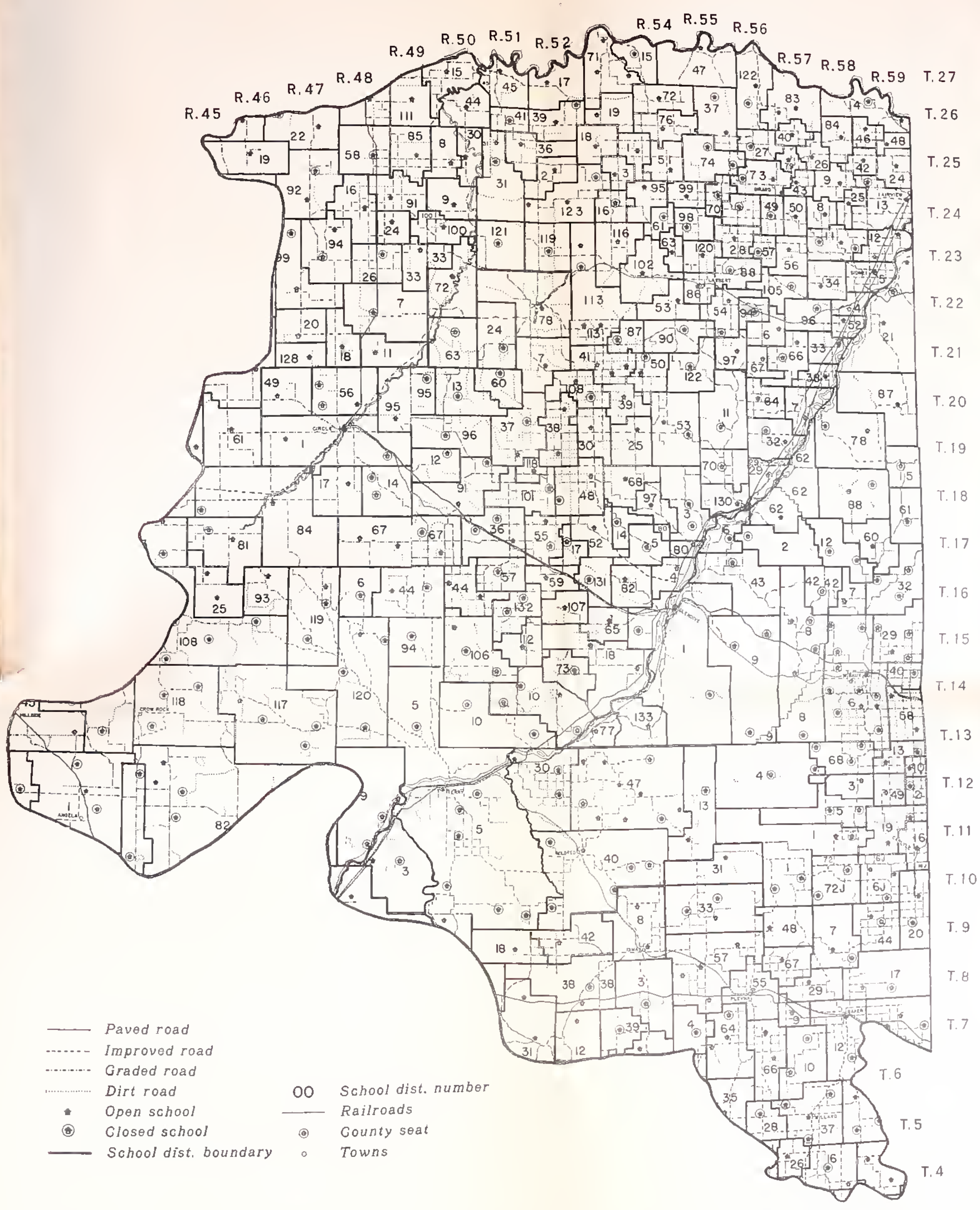
KIND OF LAND OWNERSHIP; AREA III
MONTANA, MARCH 1, 1937



U. S. DEPARTMENT OF AGRICULTURE NEG 38154 BUREAU OF AGRICULTURAL ECONOMICS

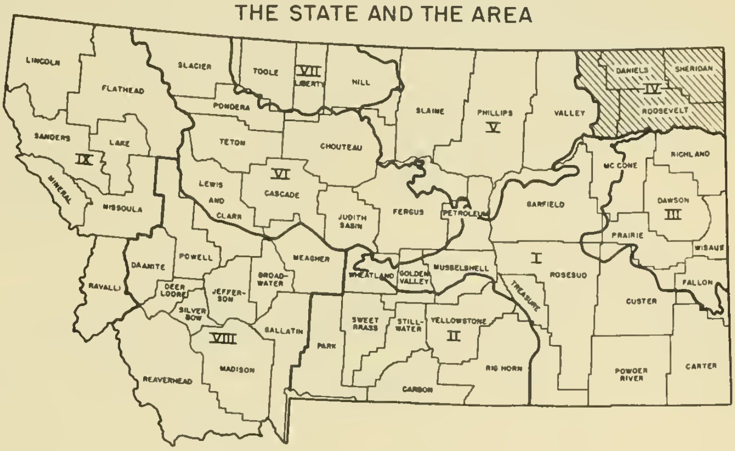
23

ROADS AND SCHOOLS; AREA III MONTANA, 1939

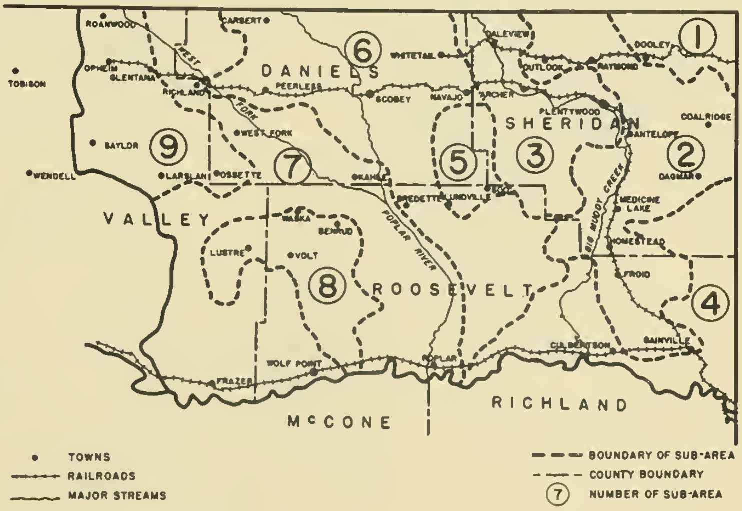


AIDS TO PLANNING
AREA IV MONTANA

THE STATE AND THE AREA

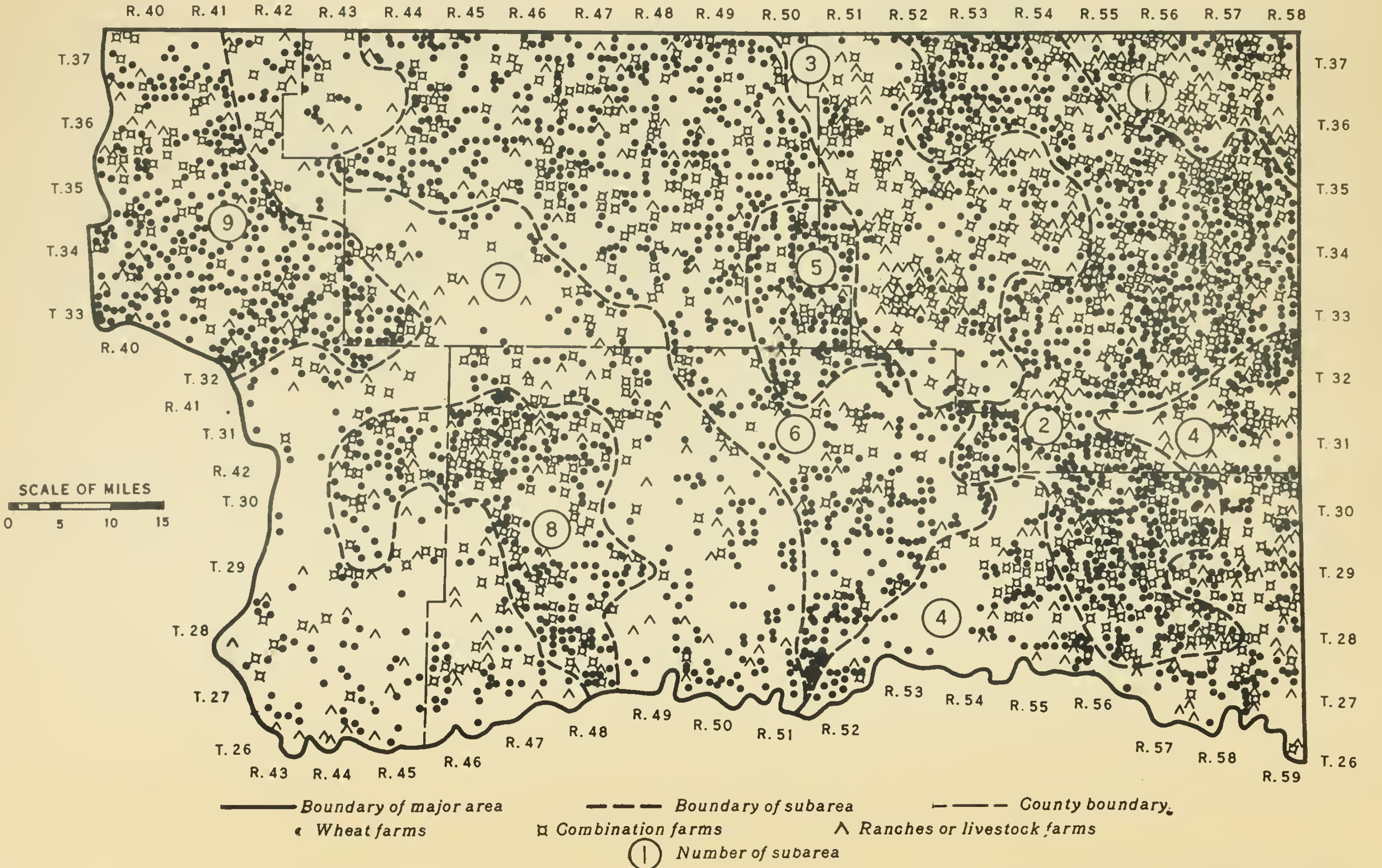


THE SUB-AREAS OF AREA IV



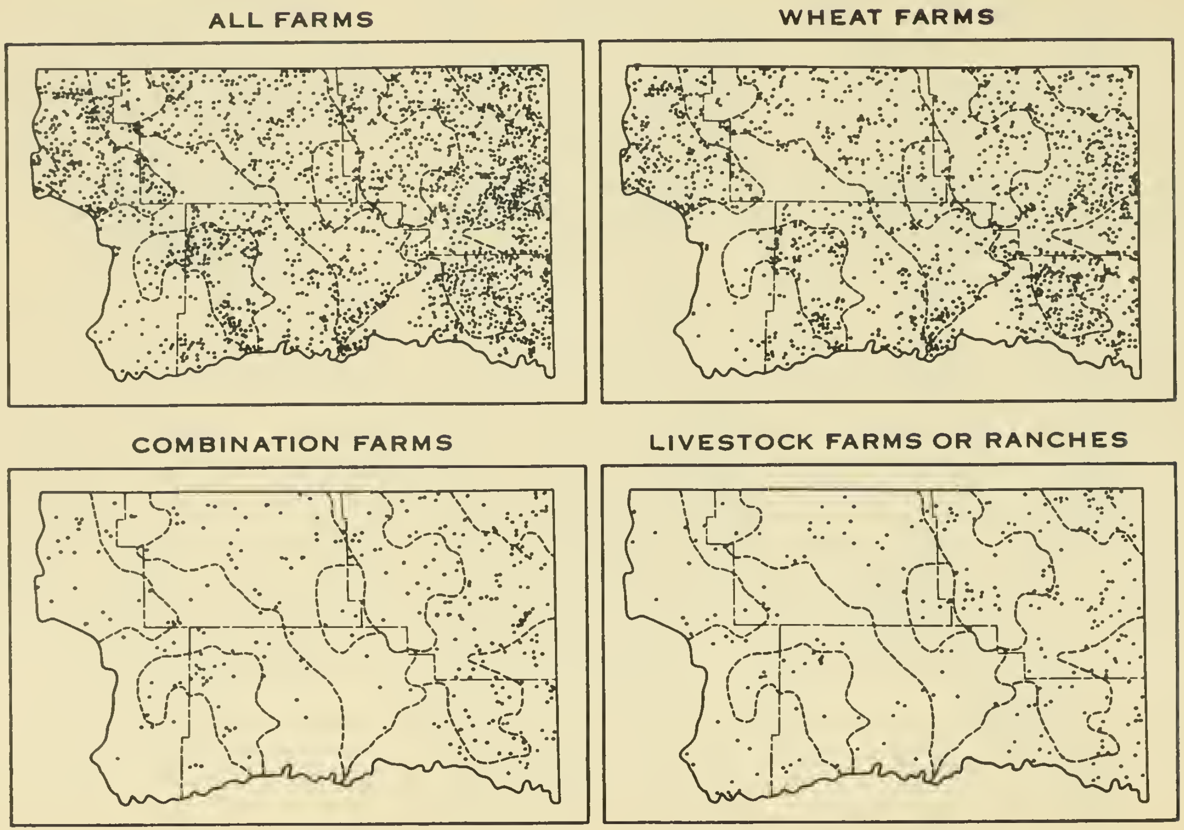
U. S. DEPARTMENT OF AGRICULTURE NEG. 38424 BUREAU OF AGRICULTURAL ECONOMICS

PRESENT LOCATION OF FARMS BY TYPE AND TYPE-OF-FARMING SUBAREAS, AREA IV, MONTANA



U. S DEPARTMENT OF AGRICULTURE NEG. 38137 BUREAU OF AGRICULTURAL ECONOMICS

FARMS HAVING GROSS INCOME EXPECTANCIES OF $1,000 OR LESS



ALL FARMS

WHEAT FARMS

COMBINATION FARMS

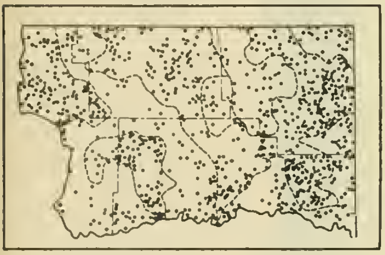
LIVESTOCK FARMS OR RANCHES

U. S. DEPARTMENT OF AGRICULTURE NEG. 38138 BUREAU OF AGRICULTURAL ECONOMICS

MAJOR WEAKNESSES IN FACTORS AFFECTING INCOME ON FARMS WITH GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

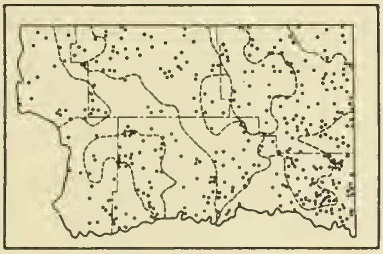
WHEAT FARMS

TOTAL ACRES OPERATED



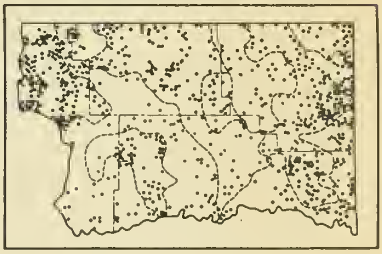
320 ACRES OR LESS

ACRES SEEDED TO WHEAT



100 ACRES OR LESS

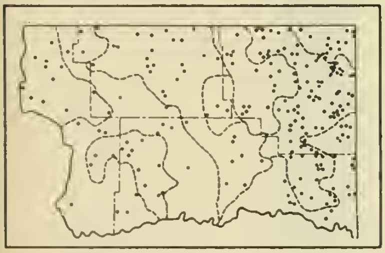
WHEAT YIELDS PER SEEDED ACRE



LESS THAN 5 BUSHELS

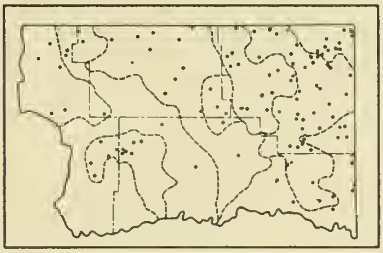
COMBINATION FARMS

TOTAL ACRES OPERATED



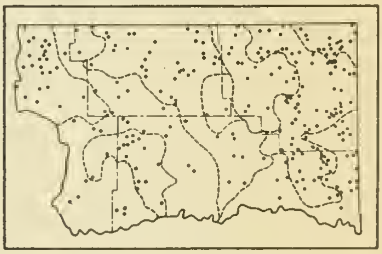
320 ACRES OR LESS

ACRES SEEDED TO WHEAT



100 ACRES OR LESS

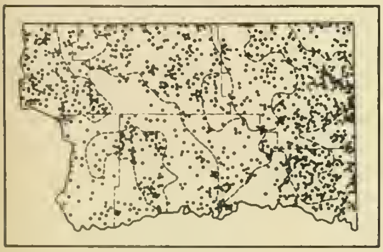
WHEAT YIELDS PER SEEDED ACRE



LESS THAN 5 BUSHELS

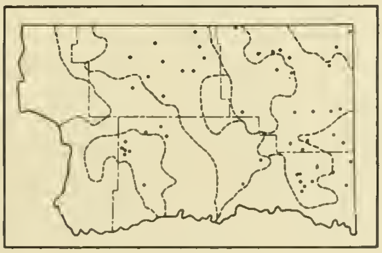
ANIMAL UNITS

WHEAT FARMS



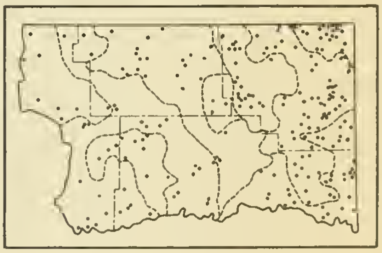
NO ANIMAL UNITS

COMBINATION FARMS



1-10 ANIMAL UNITS

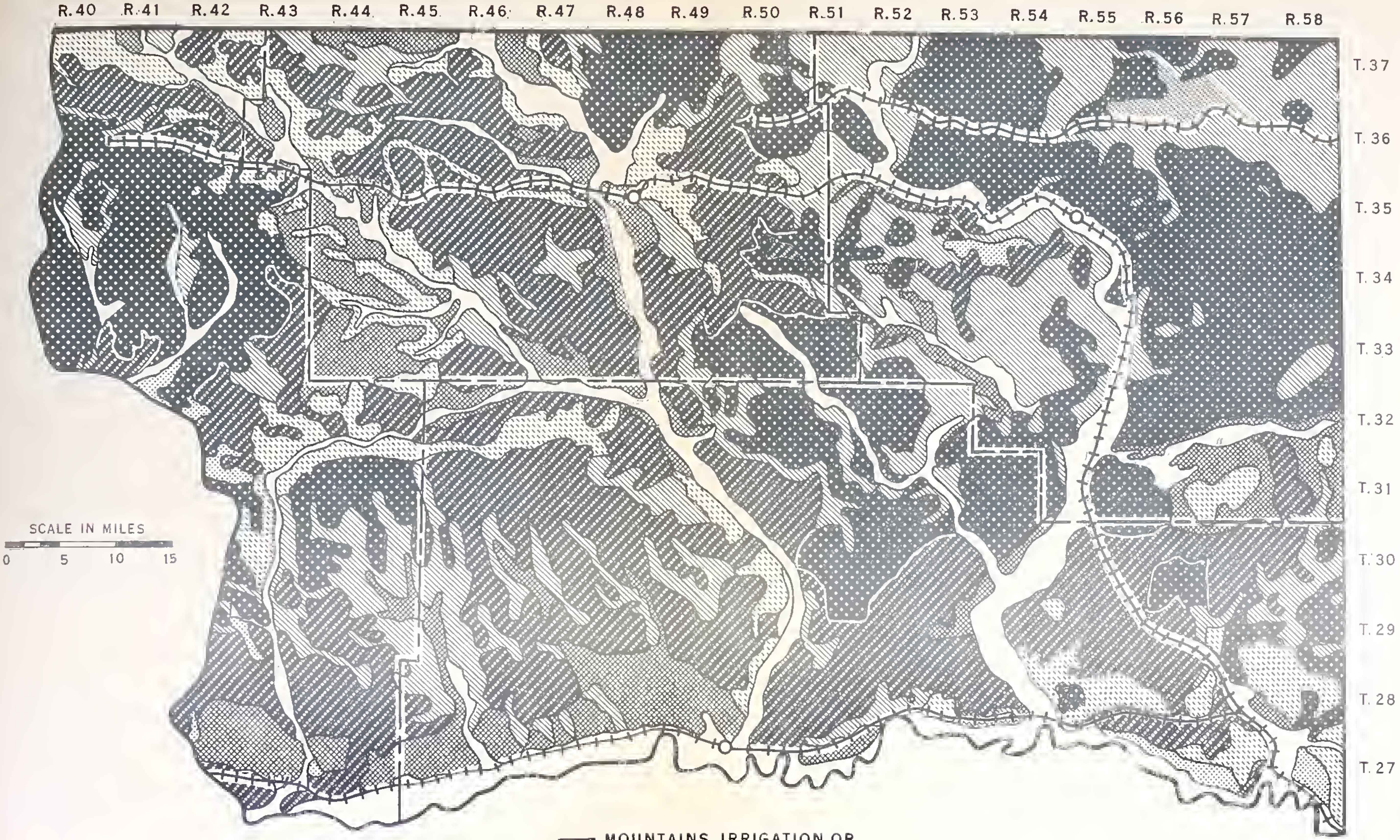
LIVESTOCK FARMS



25 ANIMAL UNITS OR LESS

U. S DEPARTMENT OF AGRICULTURE NEG 38139 BUREAU OF AGRICULTURAL ECONOMICS

CLASSIFICATION OF FARM AND GRAZING LAND, AREA IV, MONTANA



☐ MOUNTAINS, IRRIGATION OR SMALL STREAM BOTTOMS

FARM LAND

GRADED AS TO YIELD OF SPRING WHEAT ON SUMMER FALLOW

- ▨ *First grade:* 22 bushels or over
- ▨ *Second grade:* 16-21 bushels
- ▨ *Third grade:* 12-15 bushels
- ▨ *Fourth grade:* 8-11 bushels

GRAZING LAND

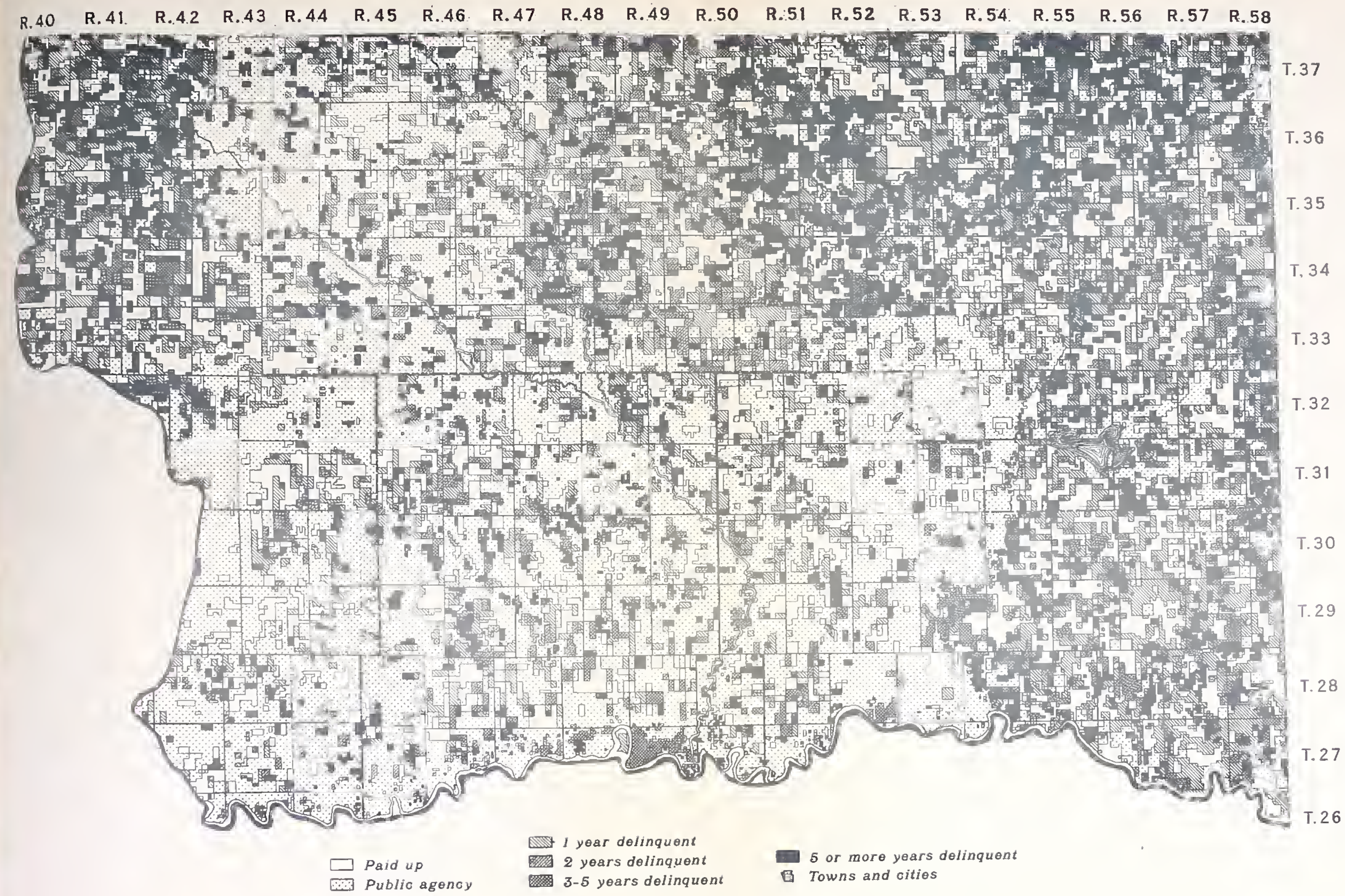
GRADED AS TO ACRES PER 1,000-POUND STEER FOR A 10-MONTH GRAZING PERIOD

- ▨ *First grade:* 18 acres or less
- ▨ *Second grade:* 19-27 acres
- ▨ *Third grade:* 28-37 acres
- ▨ *Fourth grade:* 38-55 acres

U.S. DEPARTMENT OF AGRICULTURE NEG. 38063 BUREAU OF AGRICULTURAL ECONOMICS

S. D

STATUS OF TAX DELINQUENCY; AREA IV, MONTANA, JULY 1, 1936

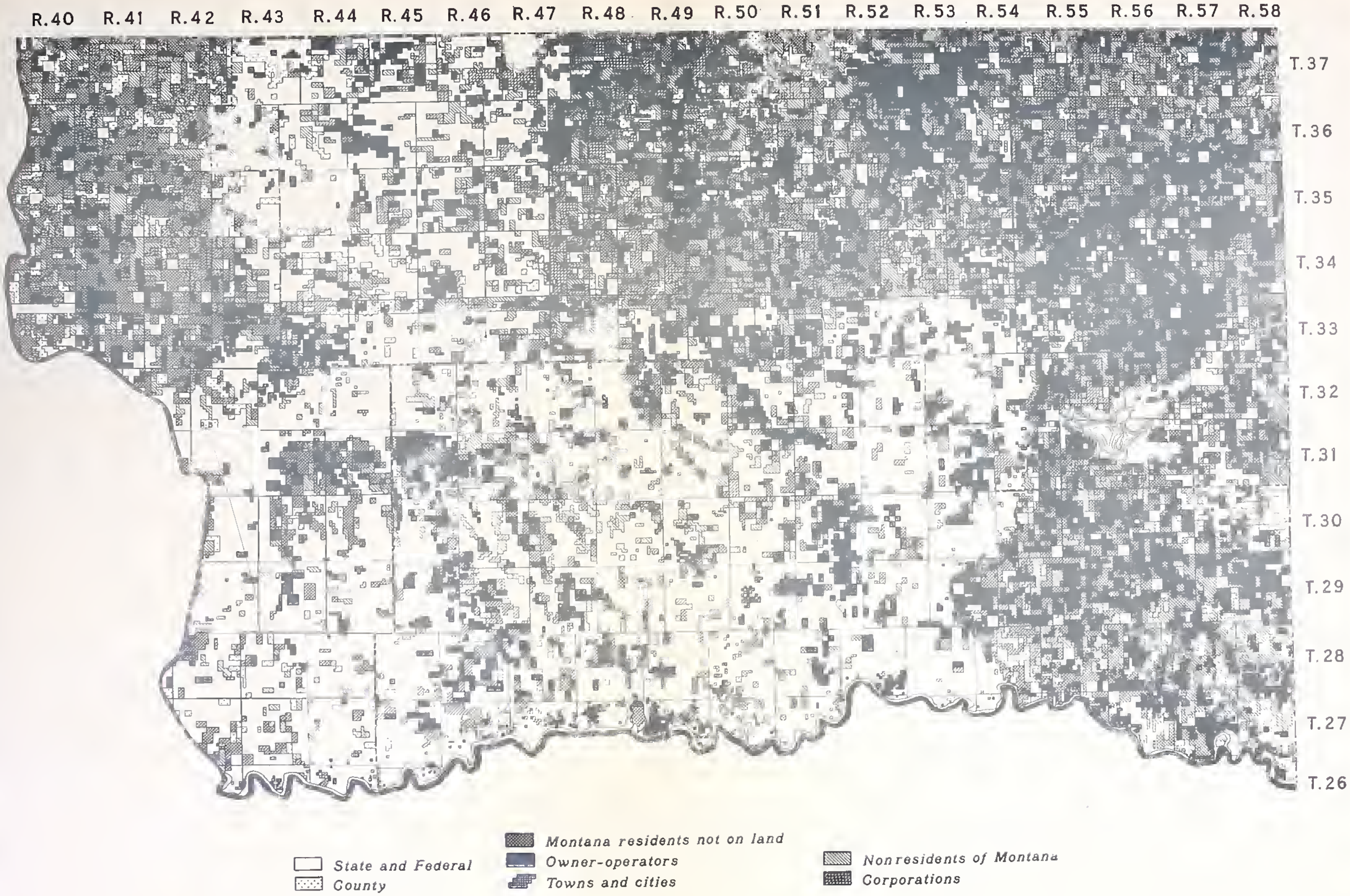


U.S. DEPARTMENT OF AGRICULTURE

NEG. 3B246

BUREAU OF AGRICULTURAL ECONOMICS

KIND OF LAND OWNERSHIP; AREA IV, MONTANA, MARCH 1, 1937

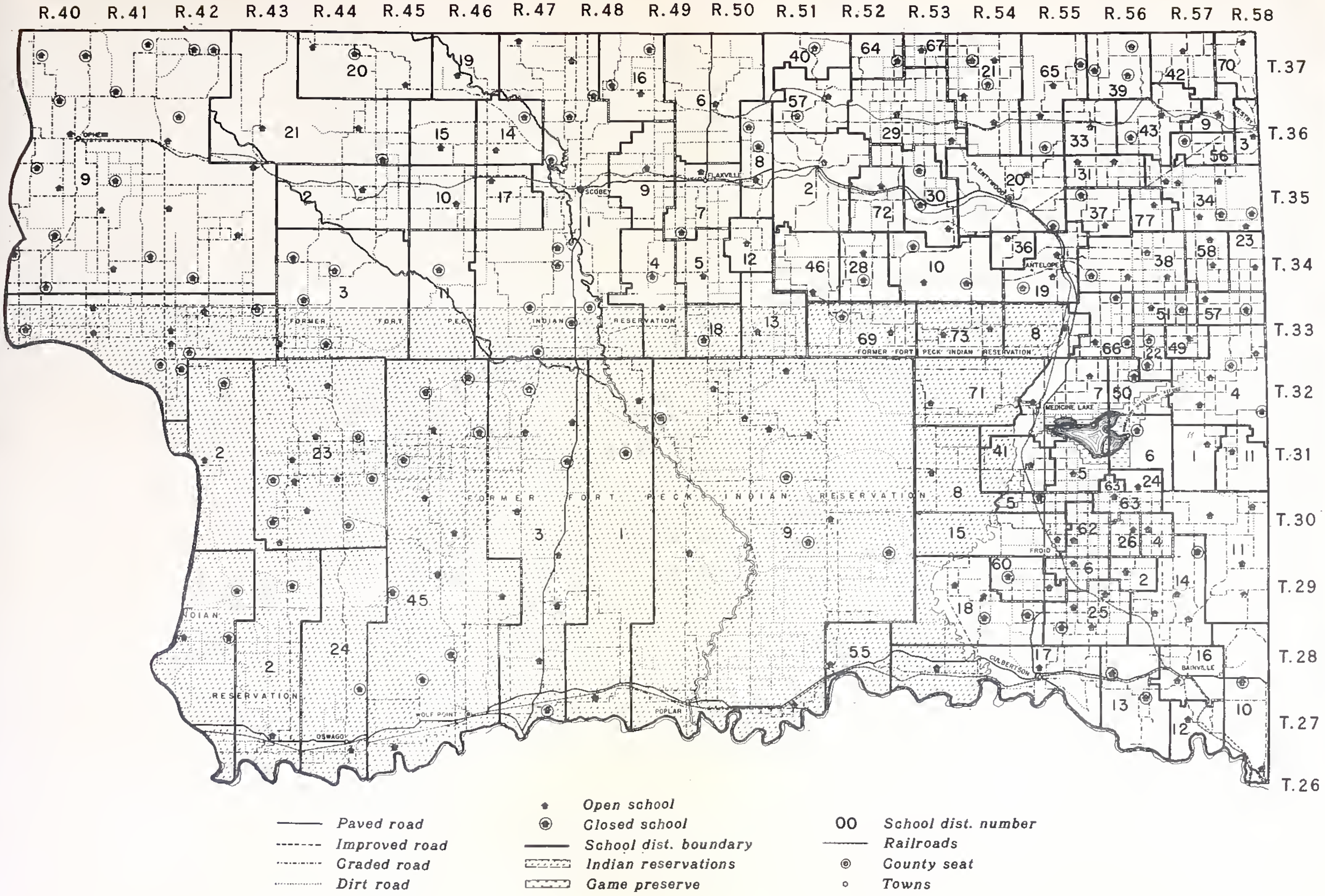


U. S. DEPARTMENT OF AGRICULTURE

NEG. 38243

BUREAU OF AGRICULTURAL ECONOMICS

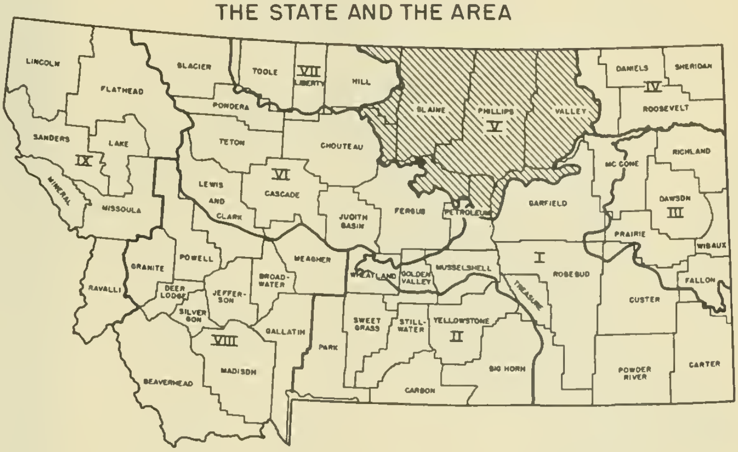
ROADS AND SCHOOLS; AREA IV, MONTANA, 1939



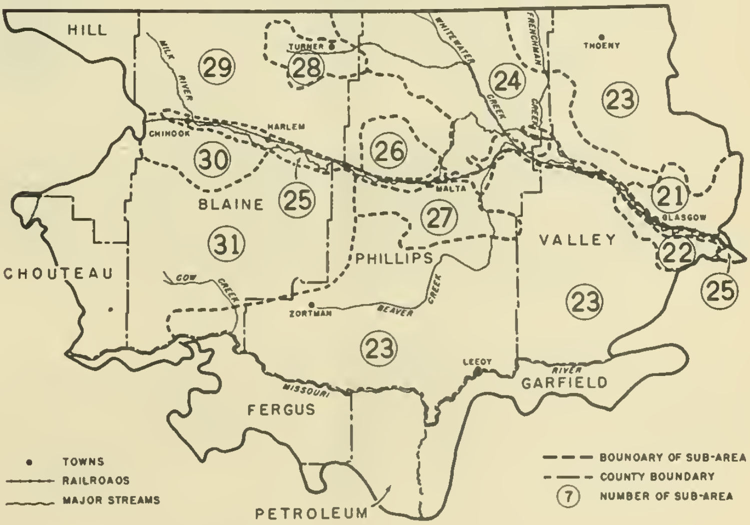
U. S. DEPARTMENT OF AGRICULTURE NEG. 38240 BUREAU OF AGRICULTURAL ECONOMICS

AIDS TO PLANNING
AREA V MONTANA

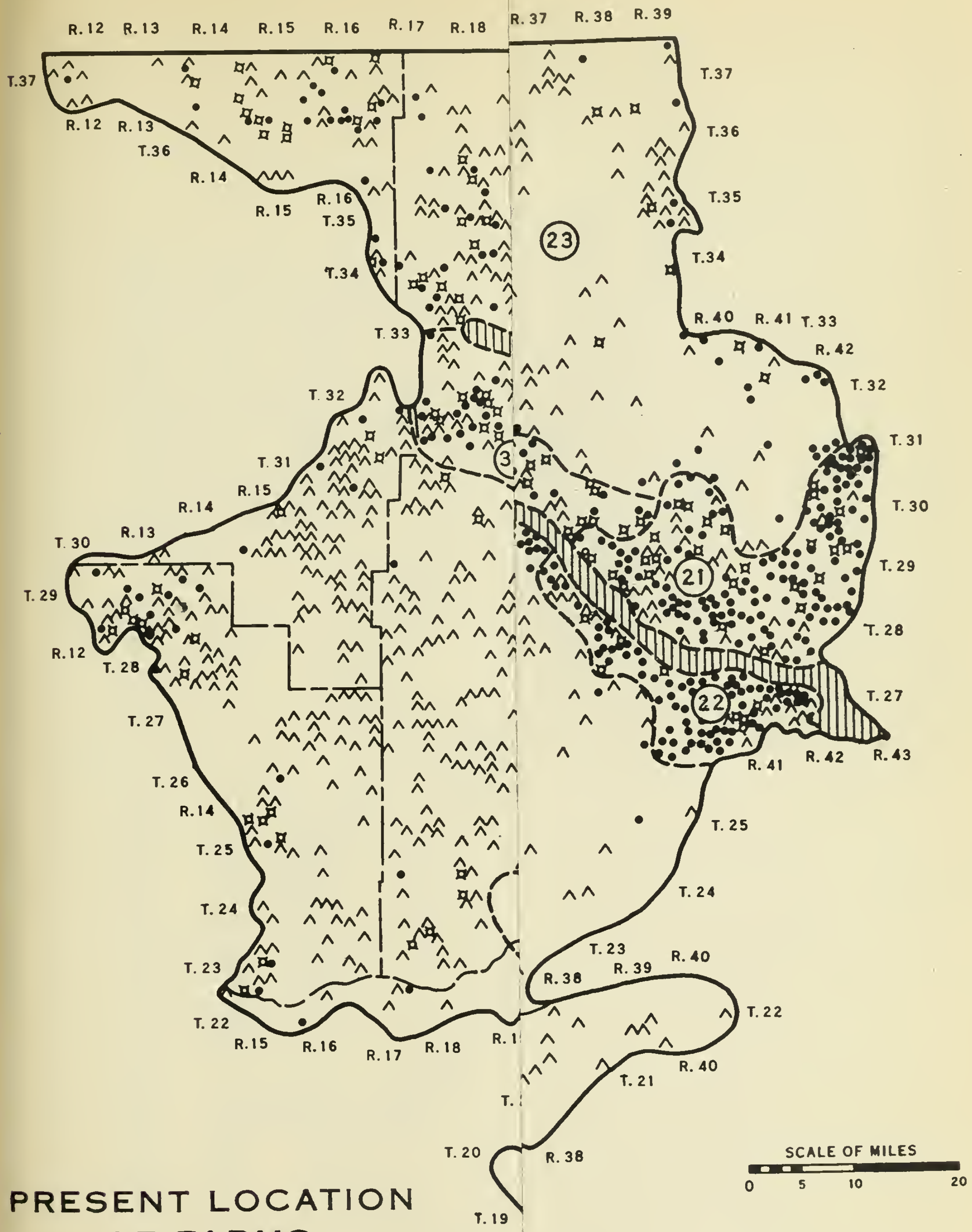
THE STATE AND THE AREA



THE SUB-AREAS OF AREA V



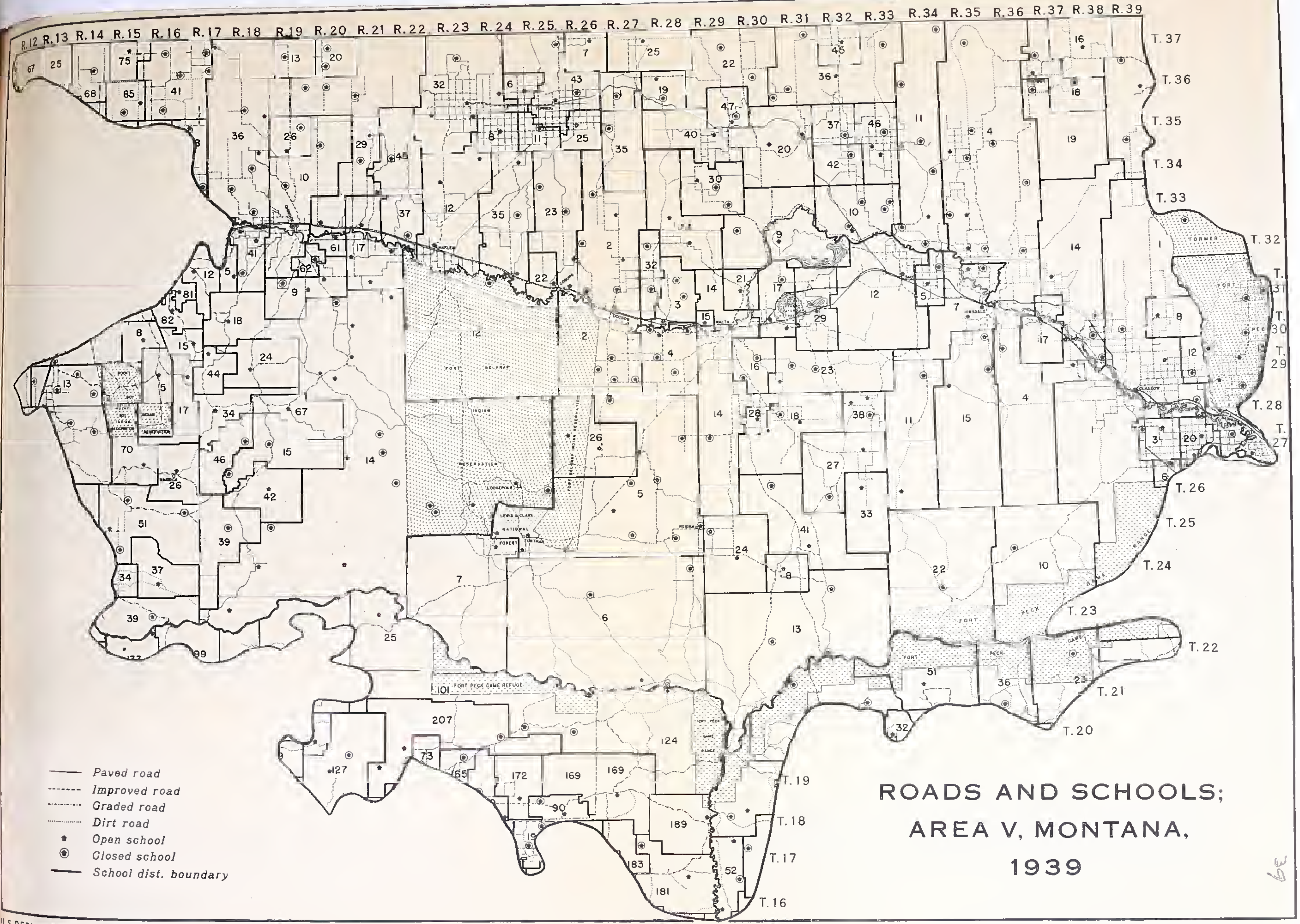
U. S. DEPARTMENT OF AGRICULTURE NEG. 38425 BUREAU OF AGRICULTURAL ECONOMICS



PRESENT LOCATION OF FARMS BY TYPE AND TYPE-OF-FARMING SUBAREAS, AREA V, MONTANA

area
ea

● *Wheat farms*
¤ *Combination farms*
^ *Ranches or livestock farms*
① *Number of subarea*

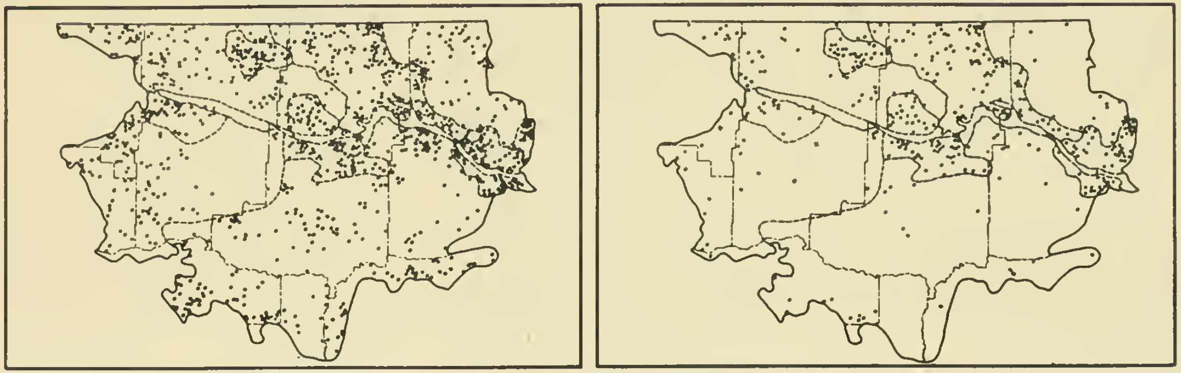


ROADS AND SCHOOLS; AREA V, MONTANA, 1939

U.S. DEPARTMENT OF AGRICULTURE

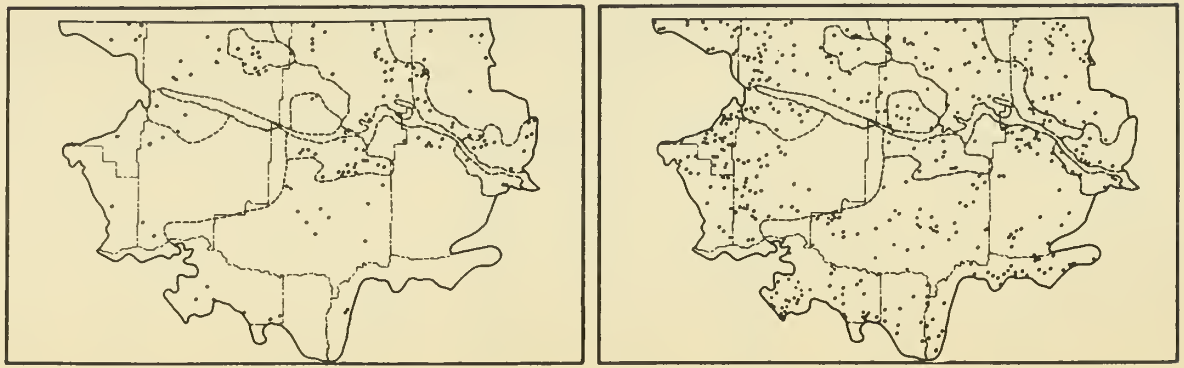
NEG. 38487 BUREAU OF AGRICULTURAL ECONOMICS

FARMS HAVING GROSS INCOME EXPECTANCIES OF $1,000 OR LESS



ALL FARMS

WHEAT FARMS



COMBINATION FARMS

LIVESTOCK FARMS OR RANCHES

U. S. DEPARTMENT OF AGRICULTURE NEG. 38135 BUREAU OF AGRICULTURAL ECONOMICS

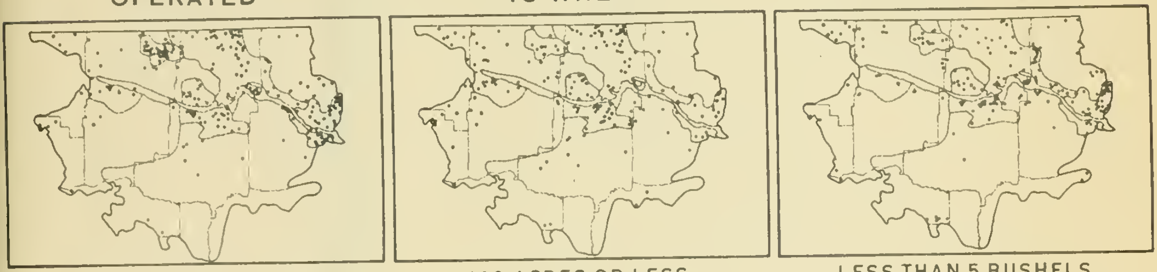
MAJOR WEAKNESSES IN FACTORS AFFECTING INCOME ON FARMS WITH GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

WHEAT FARMS

TOTAL ACRES OPERATED

ACRES SEEDED TO WHEAT

WHEAT YIELDS PER SEEDED ACRE



320 ACRES OR LESS

100 ACRES OR LESS

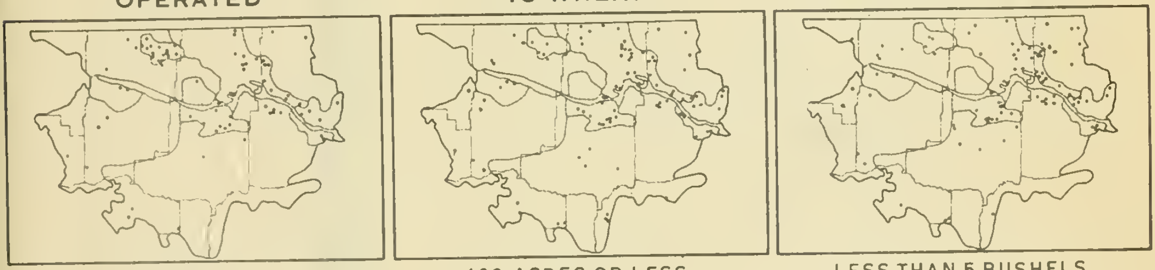
LESS THAN 5 BUSHELS

COMBINATION FARMS

TOTAL ACRES OPERATED

ACRES SEEDED TO WHEAT

WHEAT YIELDS PER SEEDED ACRE



320 ACRES OR LESS

100 ACRES OR LESS

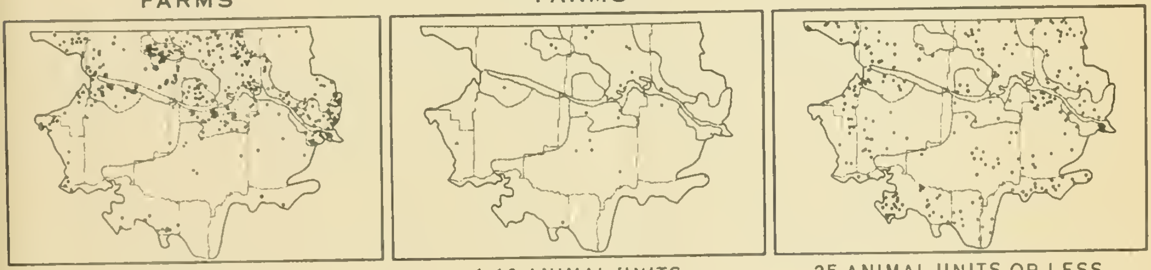
LESS THAN 5 BUSHELS

ANIMAL UNITS

WHEAT FARMS

COMBINATION FARMS

LIVESTOCK FARMS

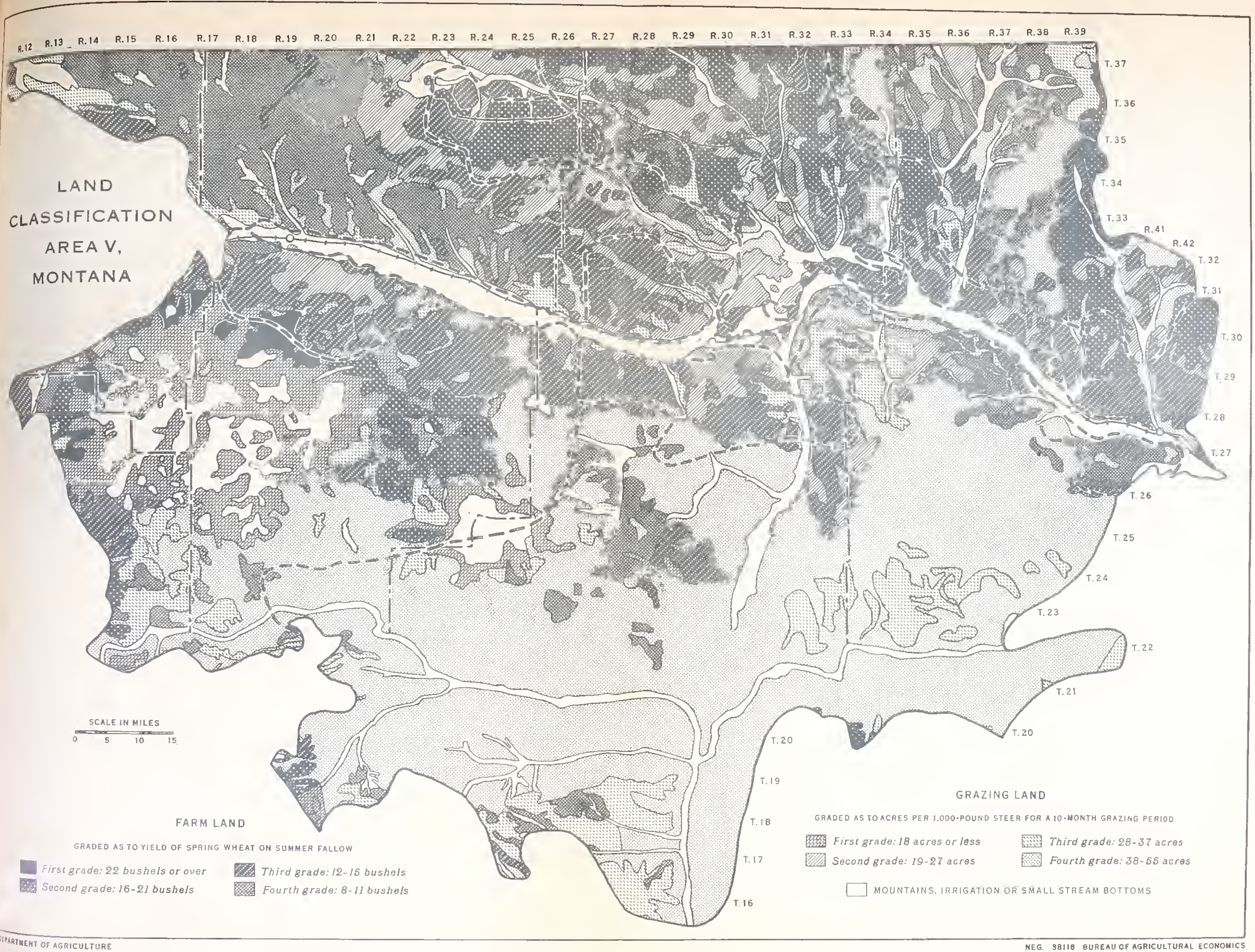


NO ANIMAL UNITS

1-10 ANIMAL UNITS

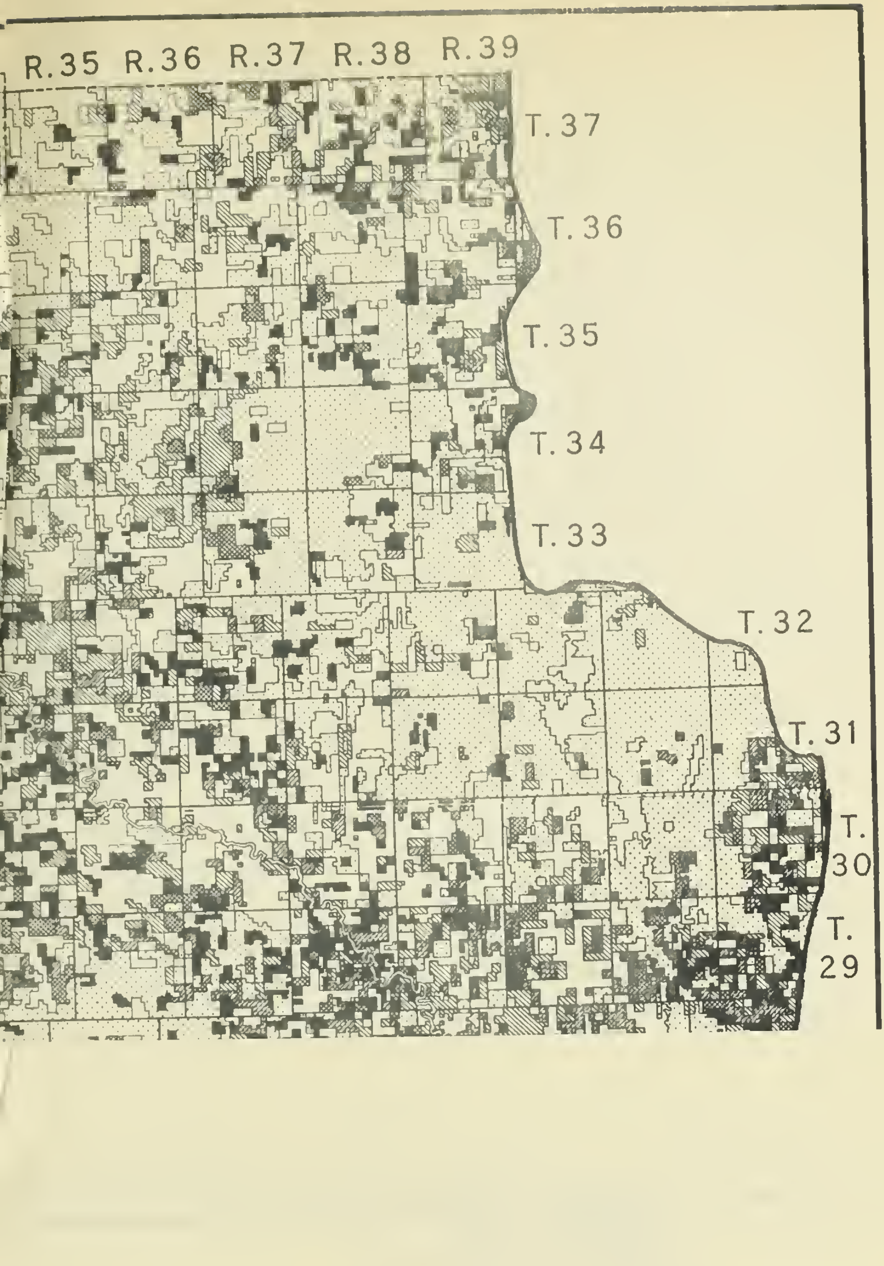
25 ANIMAL UNITS OR LESS

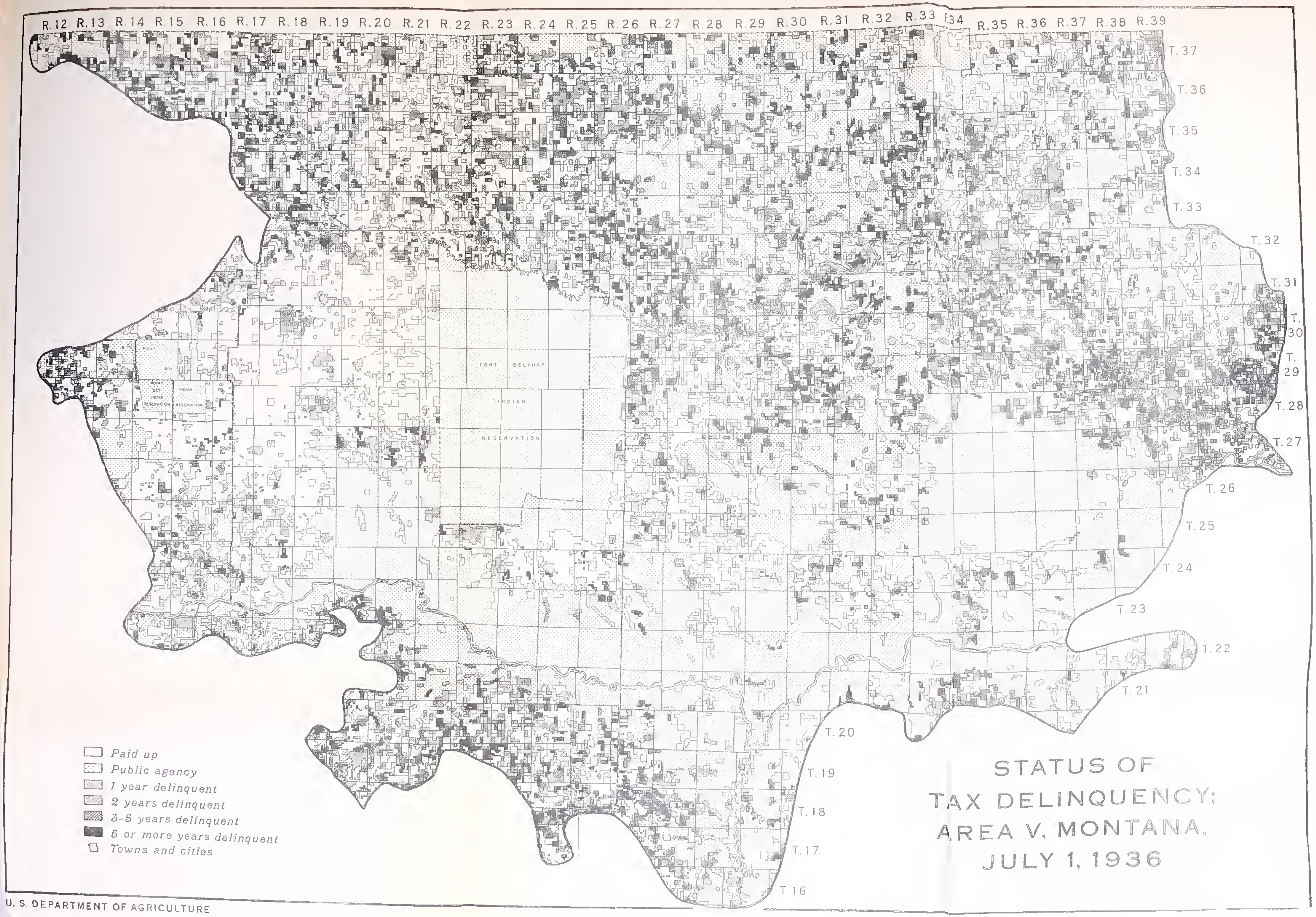
U. S. DEPARTMENT OF AGRICULTURE NEG 38136 BUREAU OF AGRICULTURAL ECONOMICS


LAND CLASSIFICATION AREA V, MONTANA
R.12
R.13
R.14
R.15
R.16
R.17
R.18
R.19
R.20
R.21
R.22
R.23
R.24
R.25
R.26
R.27
R.28
R.29
R.30
R.31
R.32
R.33
R.34
R.35
R.36
R.37
R.38
R.39
R.41
R.42
T.37
T.36
T.35
T.34
T.33
T.32
T.31
T.30
T.29
T.28
T.27
T.26
T.25
T.24
T.23
T.22
T.21
T.20
T.19
T.18
T.17
T.16
SCALE IN MILES
0
5
10
15
FARM LAND
GRADED AS TO YIELD OF SPRING WHEAT ON SUMMER FALLOW
First grade: 22 bushels or over
Second grade: 16-21 bushels
Third grade: 12-15 bushels
Fourth grade: 8-11 bushels
GRAZING LAND
GRADED AS TO ACRES PER 1,000-POUND STEER FOR A 10-MONTH GRAZING PERIOD
First grade: 18 acres or less
Second grade: 19-27 acres
Third grade: 28-37 acres
Fourth grade: 38-55 acres
MOUNTAINS, IRRIGATION OR SMALL STREAM BOTTOMS

DEPARTMENT OF AGRICULTURE

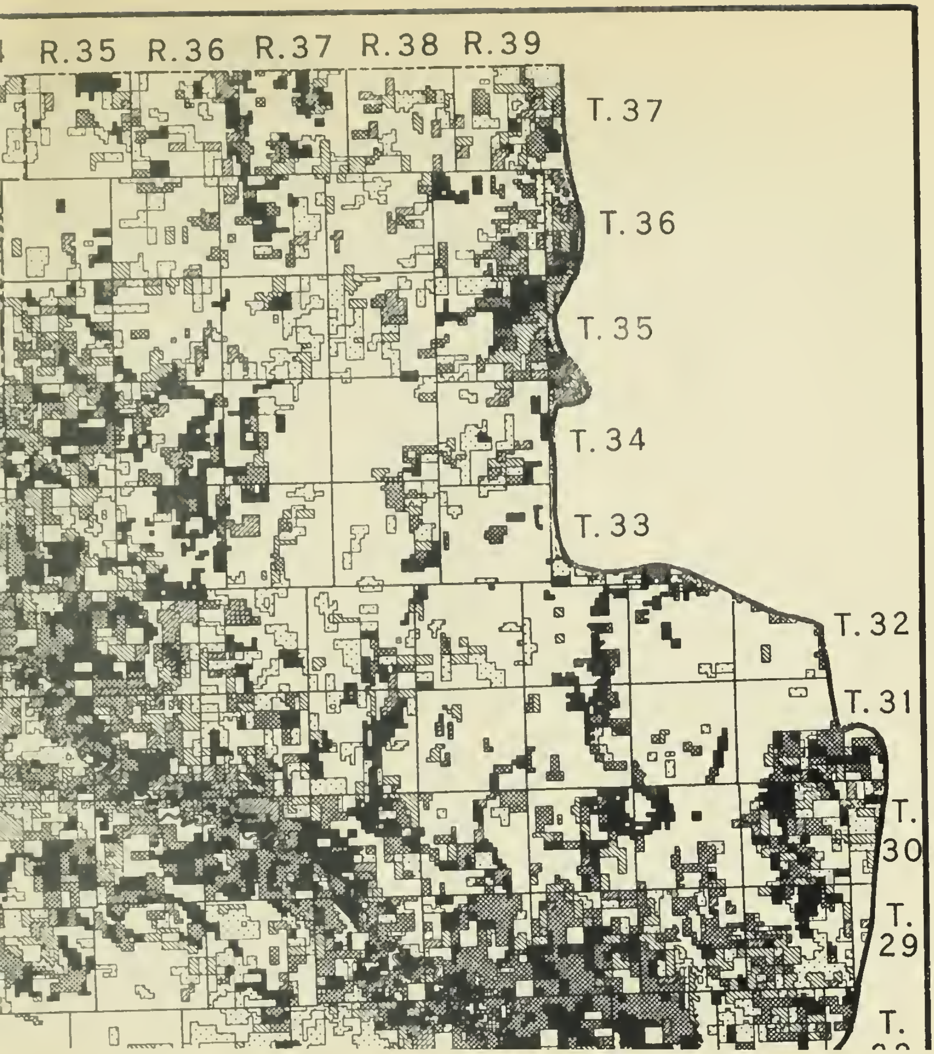
NEG. 38118 BUREAU OF AGRICULTURAL ECONOMICS

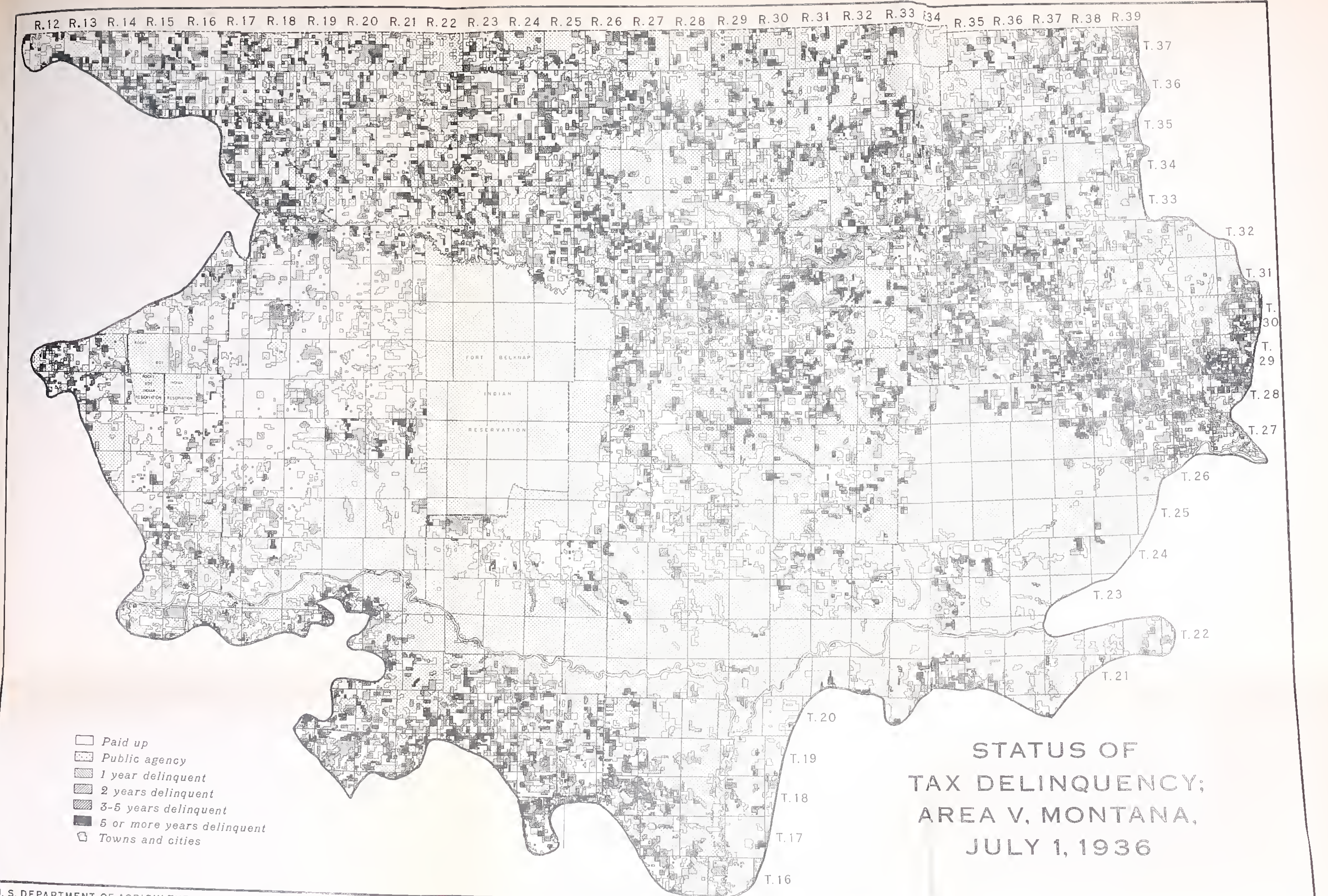

R.35
R.36
R.37
R.38
R.39
T. 37
T. 36
T. 35
T. 34
T. 33
T. 32
T. 31
T. 30
T. 29



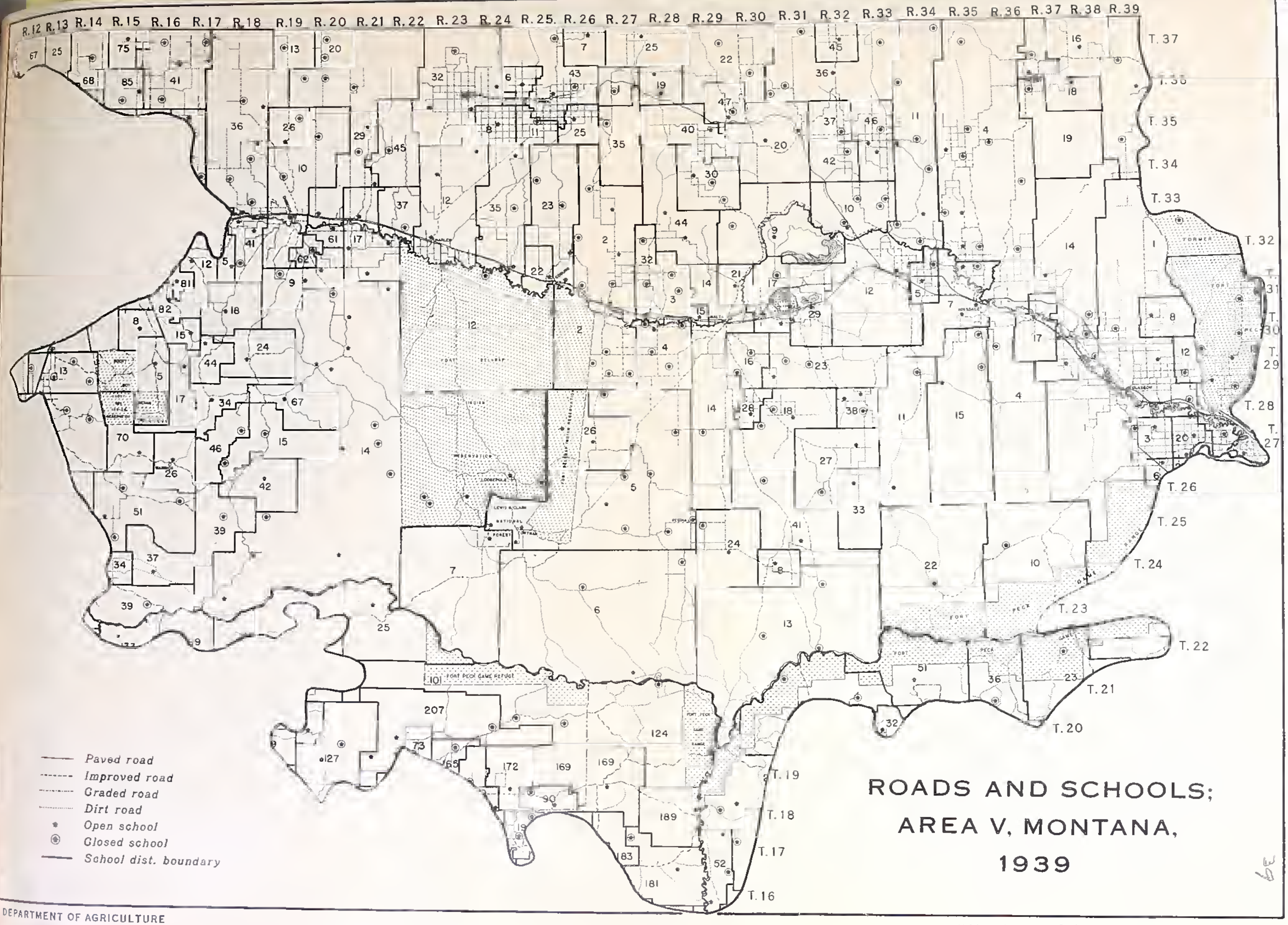
STATUS OF TAX DELINQUENCY; AREA V, MONTANA, JULY 1, 1936

U. S. DEPARTMENT OF AGRICULTURE


R.35
R.36
R.37
R.38
R.39
T. 37
T. 36
T. 35
T. 34
T. 33
T. 32
T. 31
T. 30
T. 29
T.


STATUS OF TAX DELINQUENCY; AREA V, MONTANA, JULY 1, 1936

U. S. DEPARTMENT OF AGRICULTURE



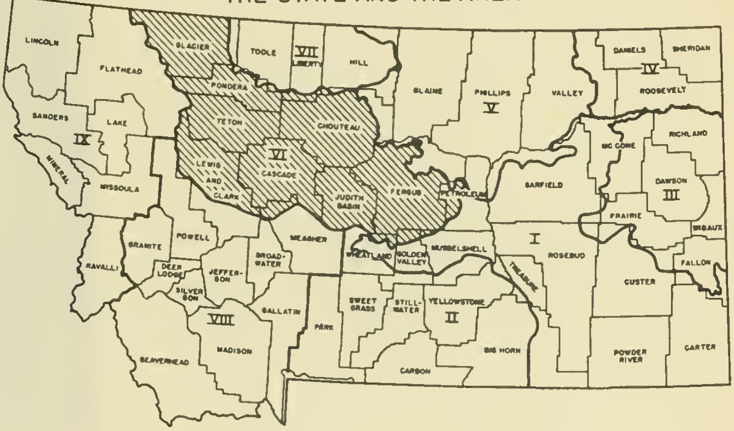
ROADS AND SCHOOLS;
AREA V, MONTANA,
1939

U.S. DEPARTMENT OF AGRICULTURE

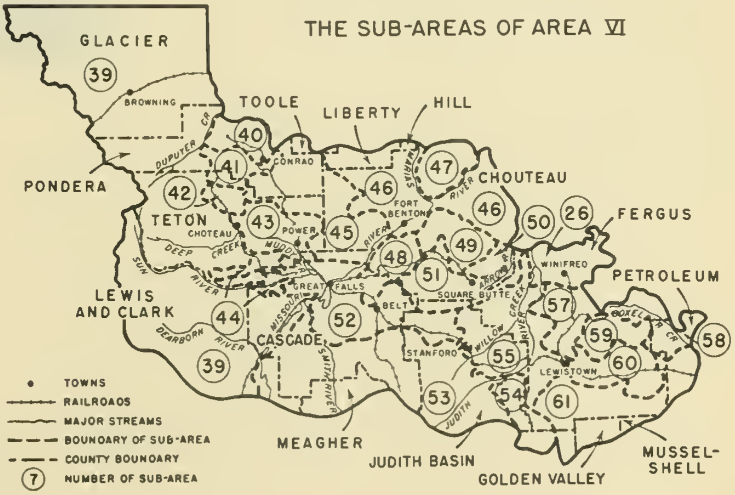
NEG. 38487 BUREAU OF AGRICULTURAL ECONOMICS

AIDS TO PLANNING
AREA VI MONTANA

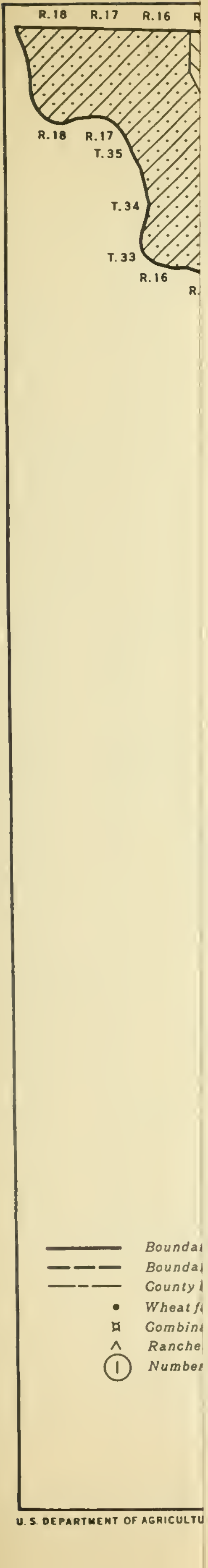
THE STATE AND THE AREA



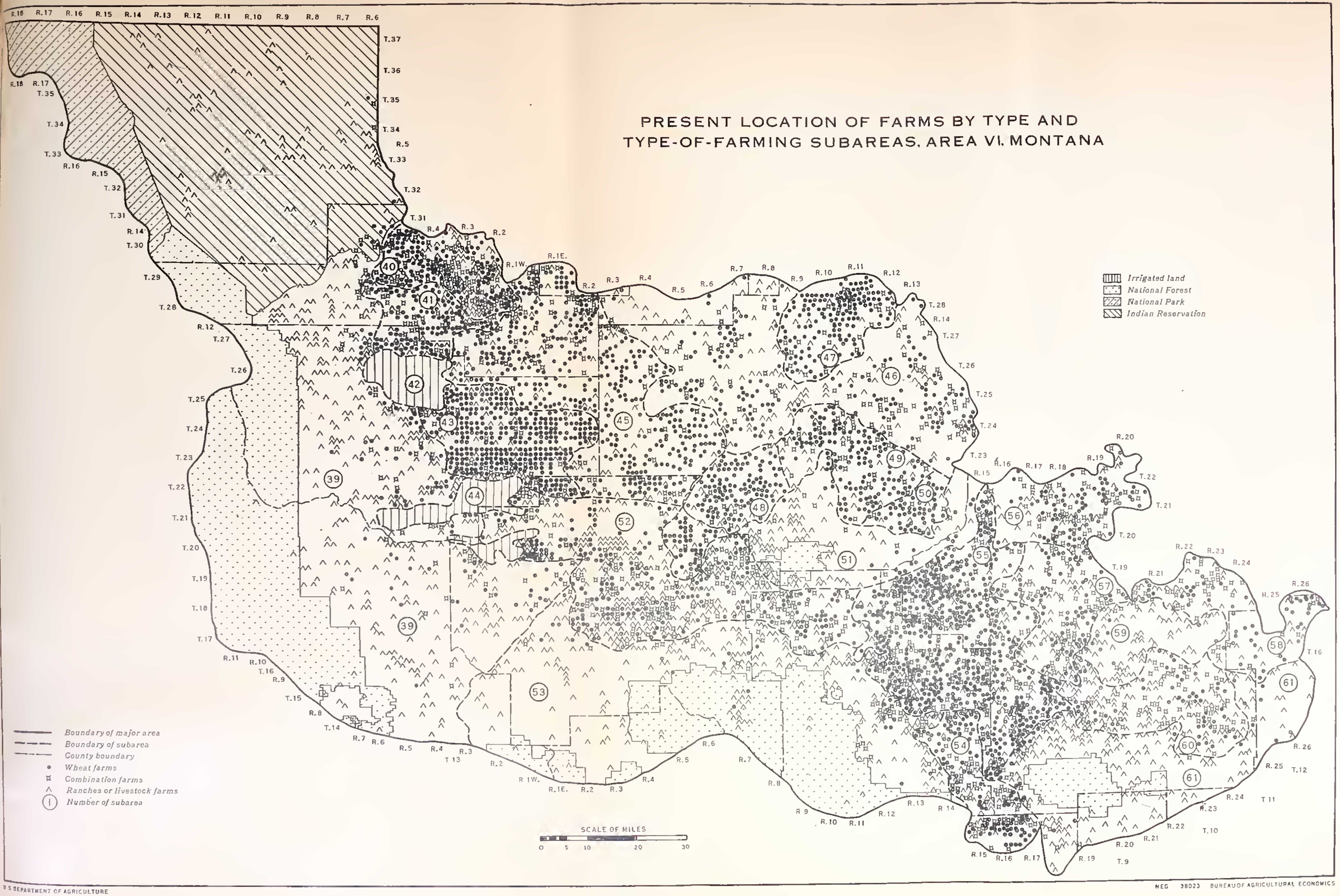
THE SUB-AREAS OF AREA VI



U. S. DEPARTMENT OF AGRICULTURE NEG. 38426 BUREAU OF AGRICULTURAL ECONOMICS



U. S. DEPARTMENT OF AGRICULTU



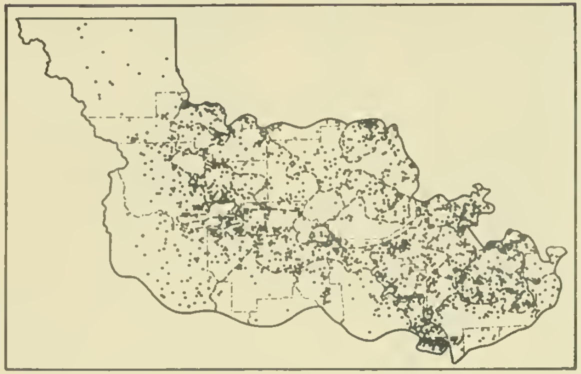
PRESENT LOCATION OF FARMS BY TYPE AND TYPE-OF-FARMING SUBAREAS, AREA VI, MONTANA

U.S. DEPARTMENT OF AGRICULTURE

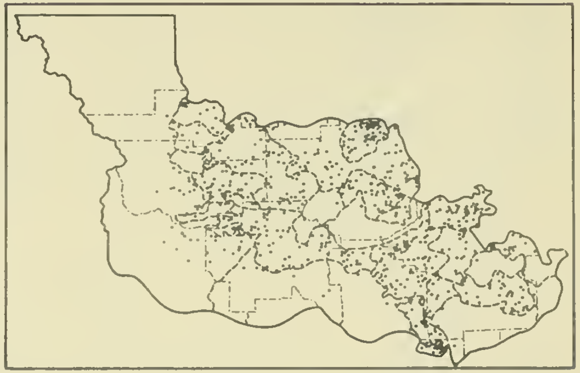
NEG. 38023 BUREAU OF AGRICULTURAL ECONOMICS

FARMS HAVING GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

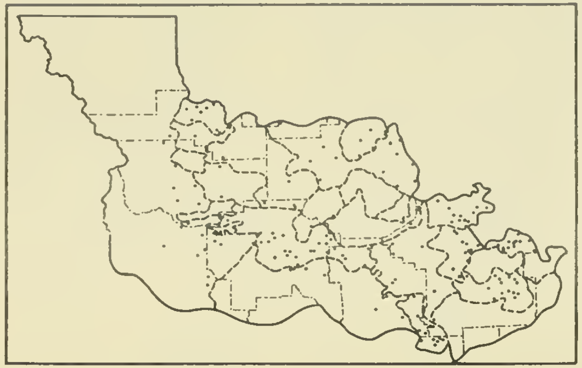
ALL FARMS



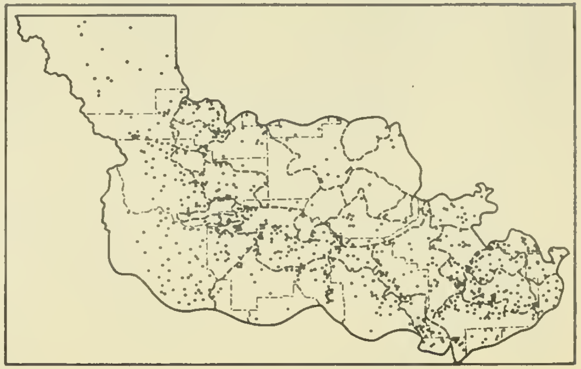
WHEAT FARMS



COMBINATION FARMS



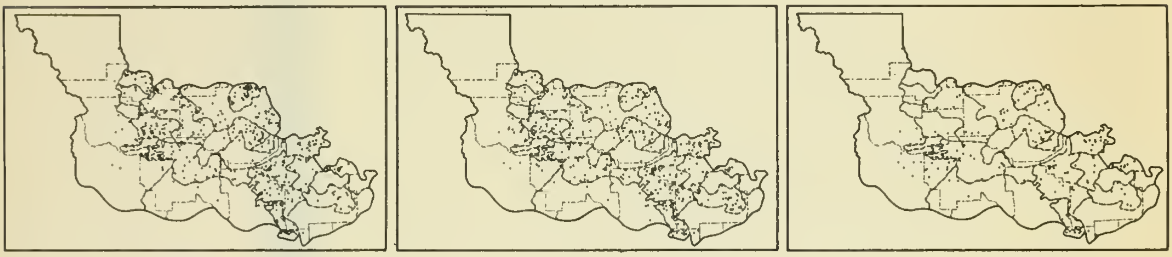
LIVESTOCK FARMS OR RANCHES



U. S. DEPARTMENT OF AGRICULTURE NEG. 38036 BUREAU OF AGRICULTURAL ECONOMICS

MAJOR WEAKNESSES IN FACTORS AFFECTING INCOME ON FARMS WITH GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

WHEAT FARMS

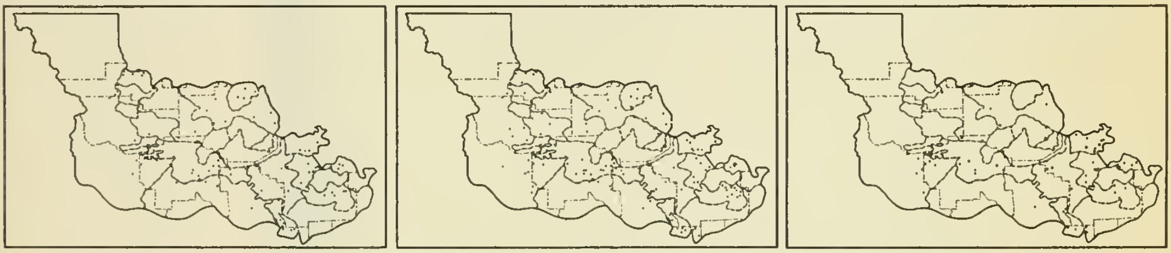


TOTAL ACRES OPERATED — 320 ACRES OR LESS

ACRES SEEDED TO WHEAT — 100 ACRES OR LESS

WHEAT YIELDS PER SEEDED ACRE — LESS THAN 5 BUSHELS

COMBINATION FARMS

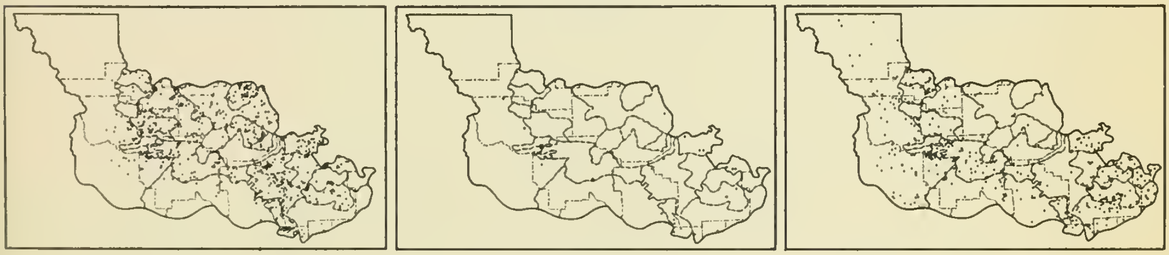


TOTAL ACRES OPERATED — 320 ACRES OR LESS

ACRES SEEDED TO WHEAT — 100 ACRES OR LESS

WHEAT YIELDS PER SEEDED ACRE — LESS THAN 5 BUSHELS

ANIMAL UNITS



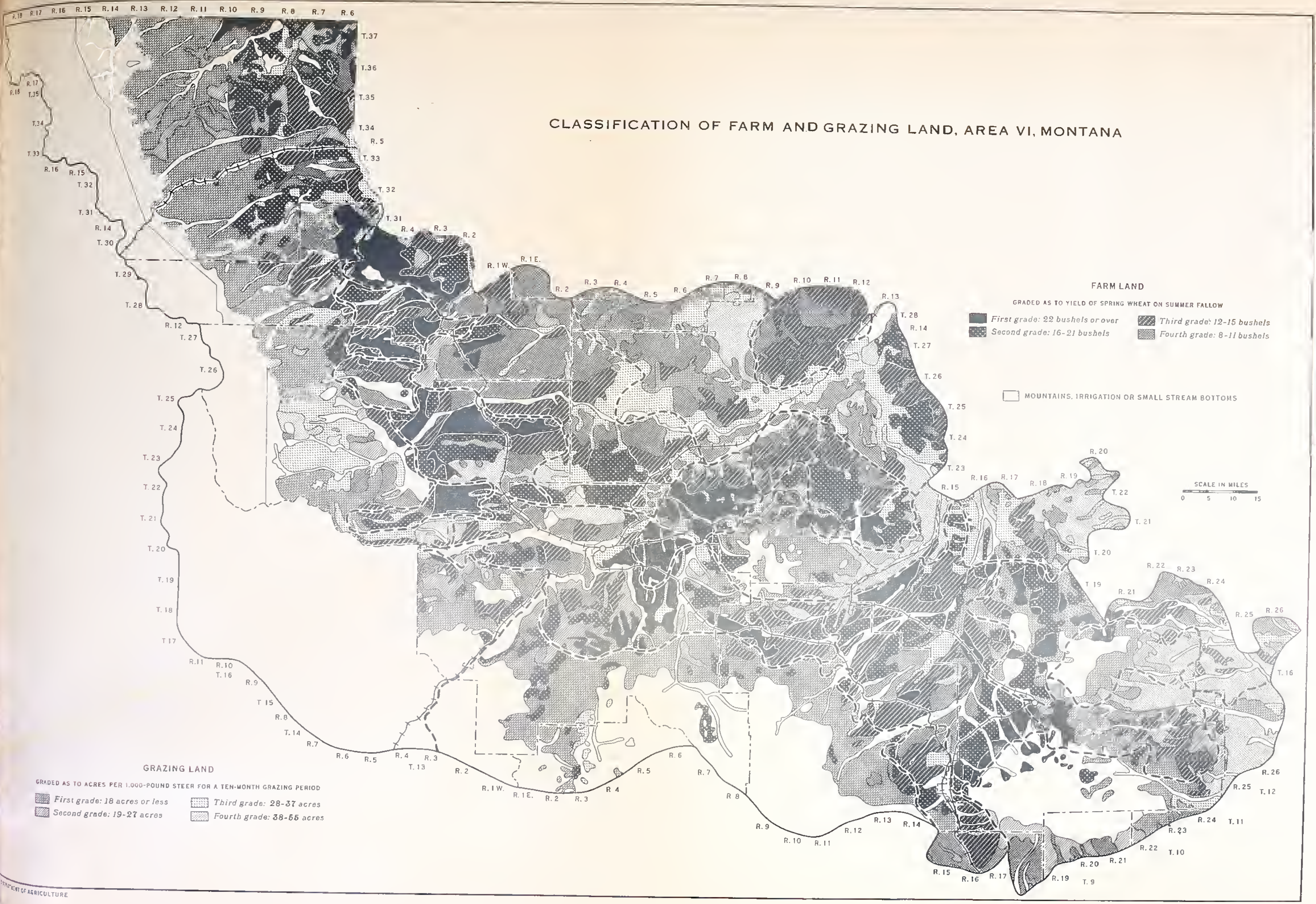
WHEAT FARMS — NO ANIMAL UNITS

COMBINATION FARMS — 1-10 ANIMAL UNITS

LIVESTOCK FARMS — 25 ANIMAL UNITS OR LESS

U. S. DEPARTMENT OF AGRICULTURE NEG. 38037 BUREAU OF AGRICULTURAL ECONOMICS

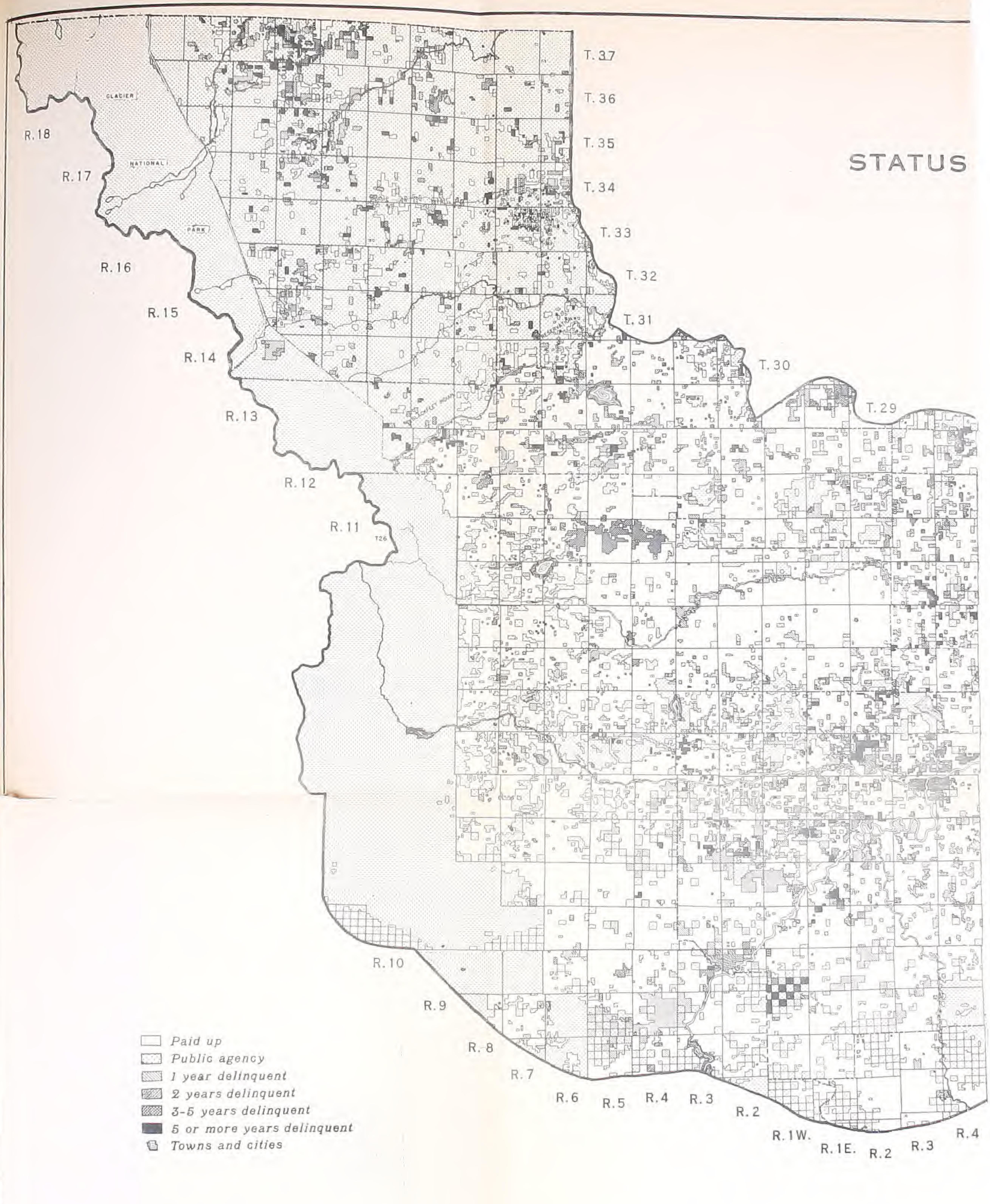
EPARTMENT OF AGRICULTUR



CLASSIFICATION OF FARM AND GRAZING LAND, AREA VI, MONTANA

MENT OF AGRICULTURE

NEG. 35961 BUREAU OF AGRICULTURAL ECONOMICS

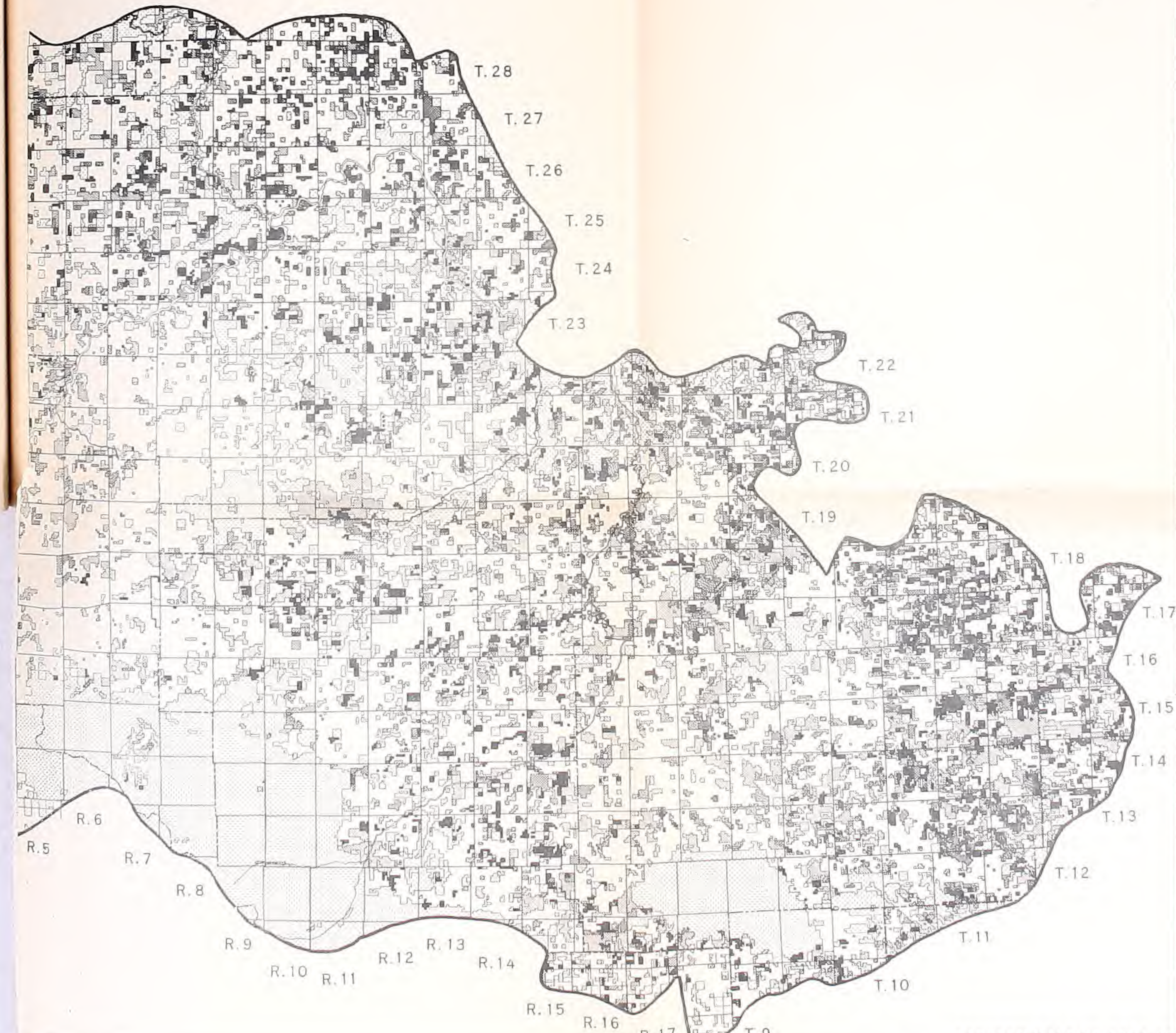

T. 37
T. 36
T. 35
T. 34
T. 33
T. 32
T. 31
T. 30
T. 29
GLACIER
NATIONAL
PARK
R. 18
R. 17
R. 16
R. 15
R. 14
R. 13
R. 12
R. 11
T26
R. 10
R. 9
R. 8
R. 7
R. 6
R. 5
R. 4
R. 3
R. 2
R. 1W.
R. 1E.
R. 2
R. 3
R. 4
Paid up
Public agency
1 year delinquent
2 years delinquent
3-5 years delinquent
5 or more years delinquent
Towns and cities

STATUS

C

M

OF TAX DELINQUENCY; AREA VI
MONTANA, JULY 1, 1936

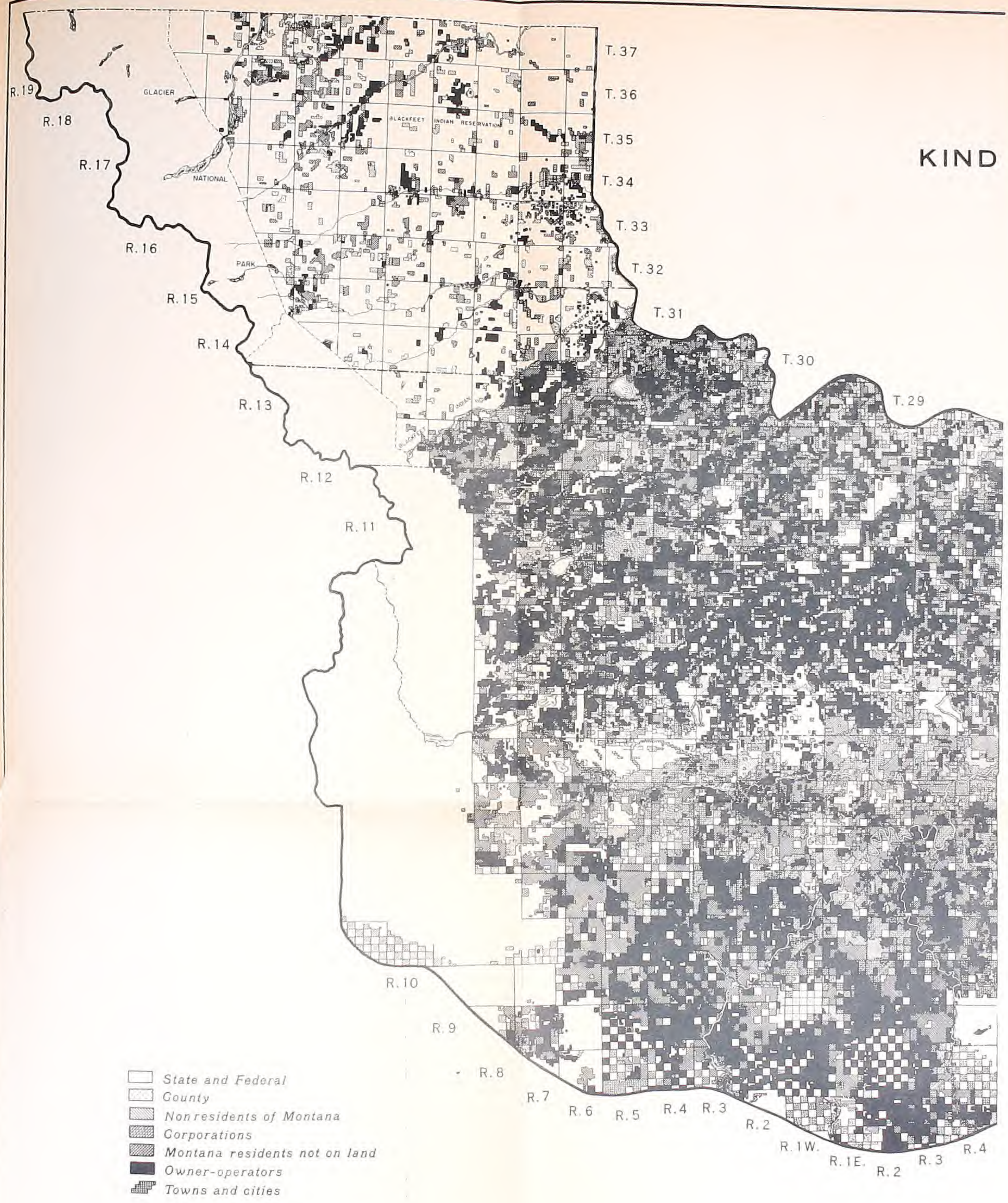


EASTERN HALF OF AREA VI

NEG. 38080 BUREAU OF AGRICULTURAL ECONOMICS

R. 1

KIND



WESTERN HALF OF AREA VI

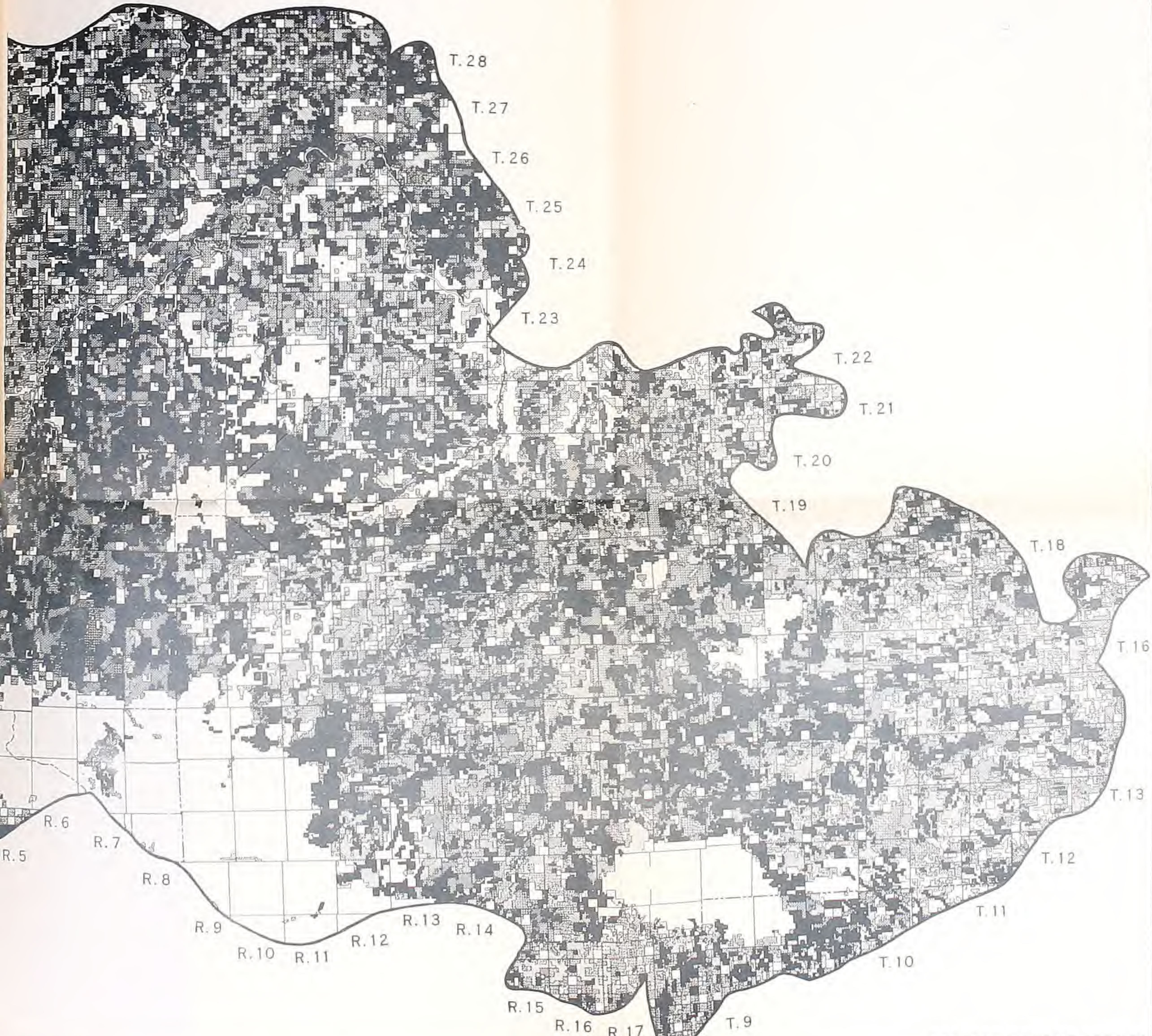
U. S. DEPARTMENT OF AGRICULTURE

4

O

M

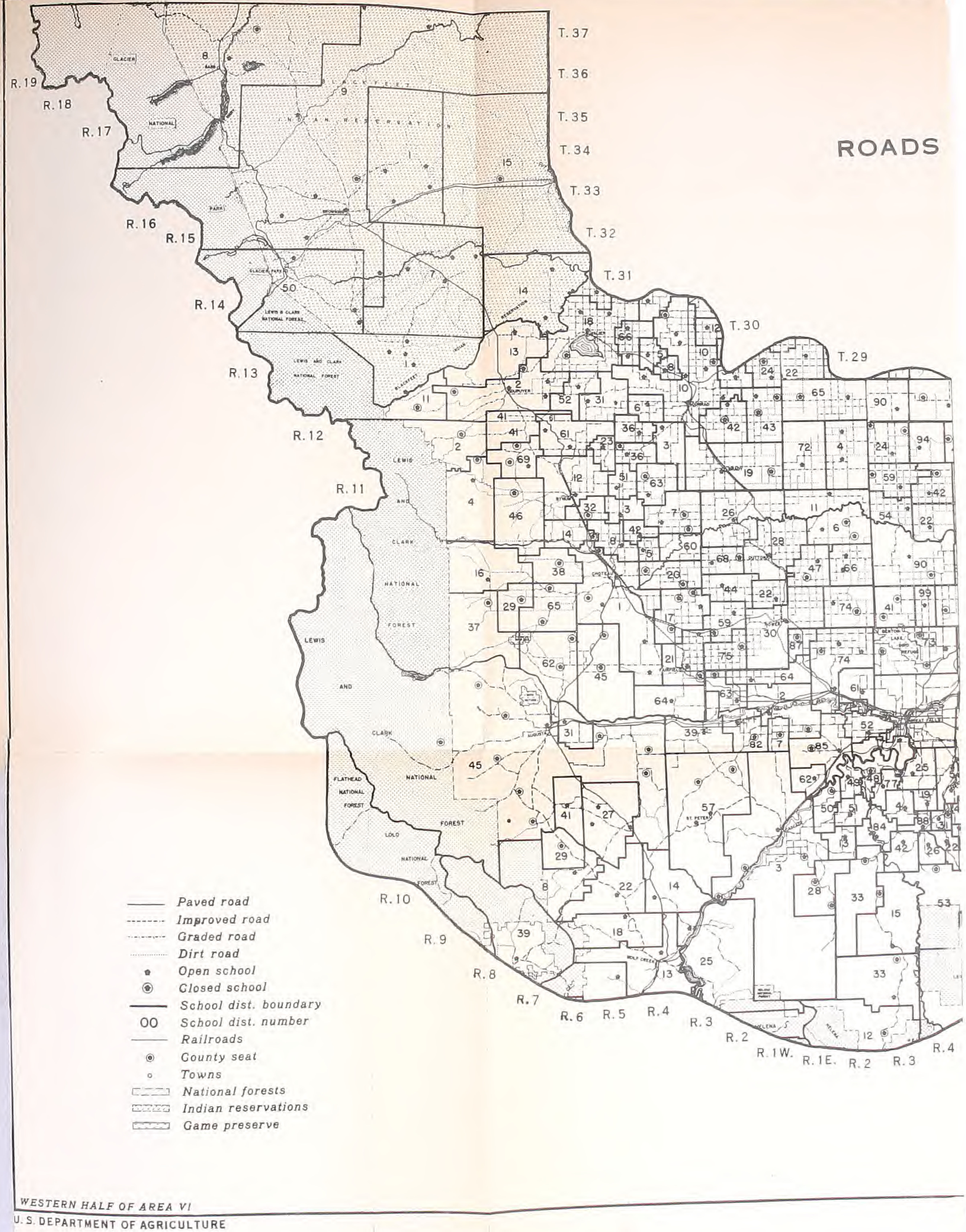
OF LAND OWNERSHIP; AREA VI, MONTANA, MARCH 1, 1937



EASTERN HALF OF AREA VI

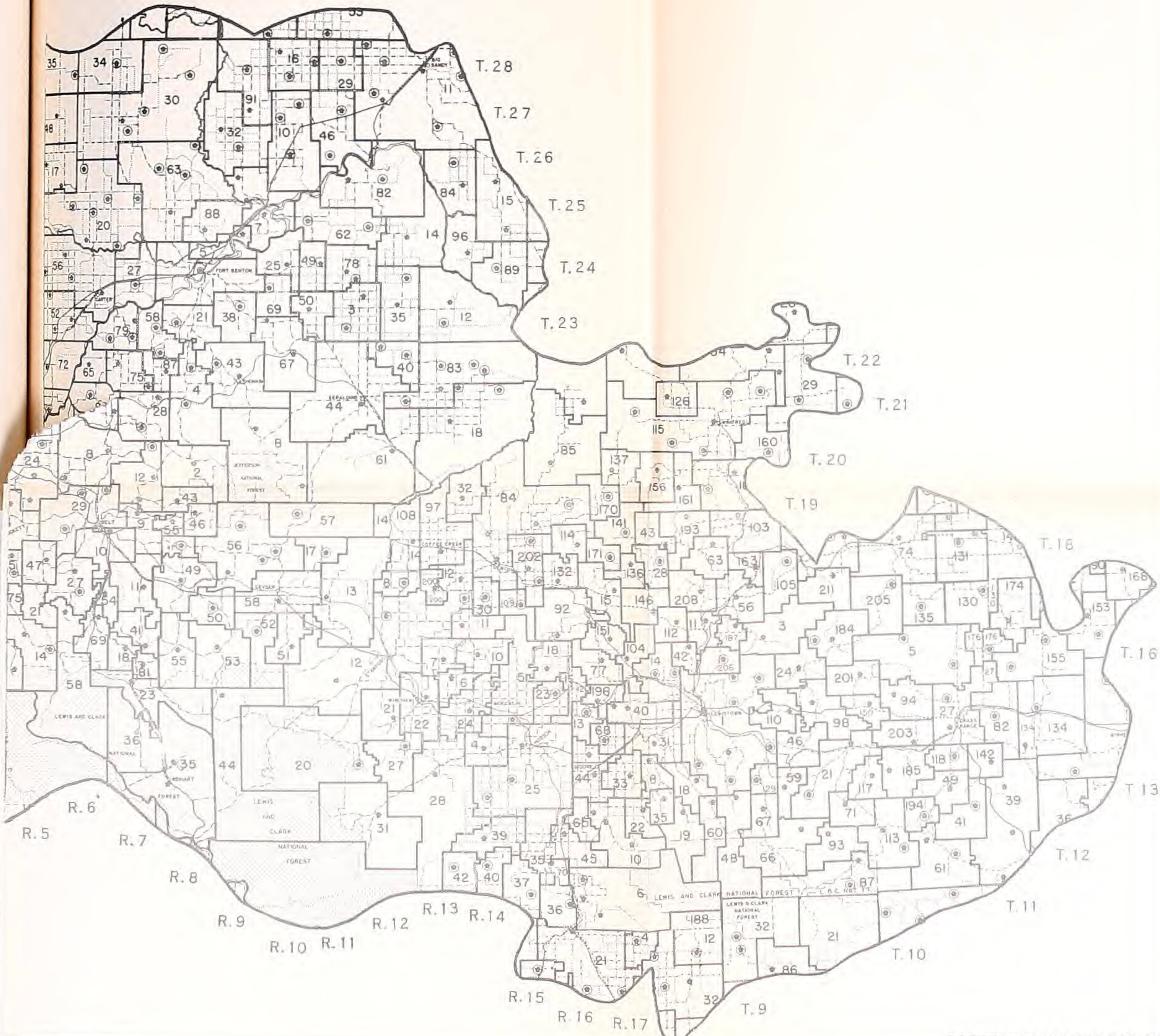
NEG. 38082 BUREAU OF AGRICULTURAL ECONOMICS

ROADS


GLACIER
NATIONAL
PARK
BLACKFEET
INDIAN RESERVATION
LEWIS & CLARK NATIONAL FOREST
LEWIS AND CLARK NATIONAL FOREST
FLATHEAD NATIONAL FOREST
LOLO NATIONAL FOREST
T. 37
T. 36
T. 35
T. 34
T. 33
T. 32
T. 31
T. 30
T. 29
R. 19
R. 18
R. 17
R. 16
R. 15
R. 14
R. 13
R. 12
R. 11
R. 10
R. 9
R. 8
R. 7
R. 6
R. 5
R. 4
R. 3
R. 2
R. 1W.
R. 1E.
R. 2
R. 3
R. 4
Paved road
Improved road
Graded road
Dirt road
Open school
Closed school
School dist. boundary
00 School dist. number
Railroads
County seat
Towns
National forests
Indian reservations
Game preserve

AND

AND SCHOOLS; AREA VI, MONTANA, 1939

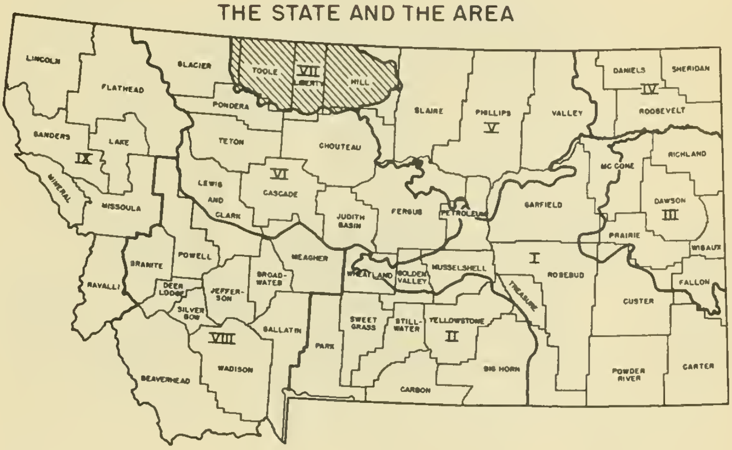


EASTERN HALF OF AREA VI

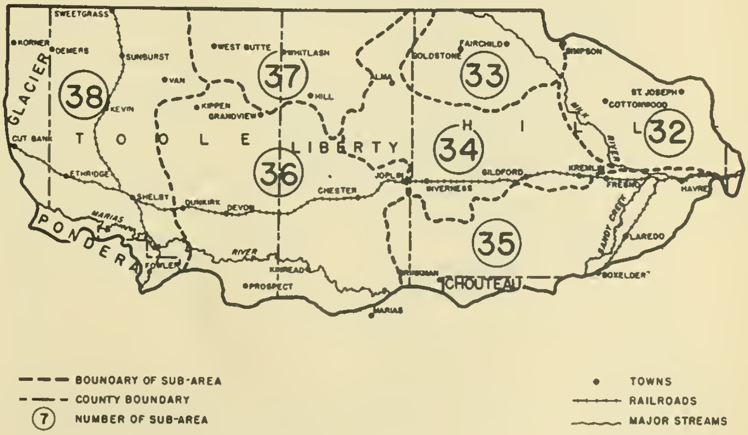
NEG. 38081   BUREAU OF AGRICULTURAL ECONOMICS

AIDS TO PLANNING
AREA VII MONTANA

THE STATE AND THE AREA

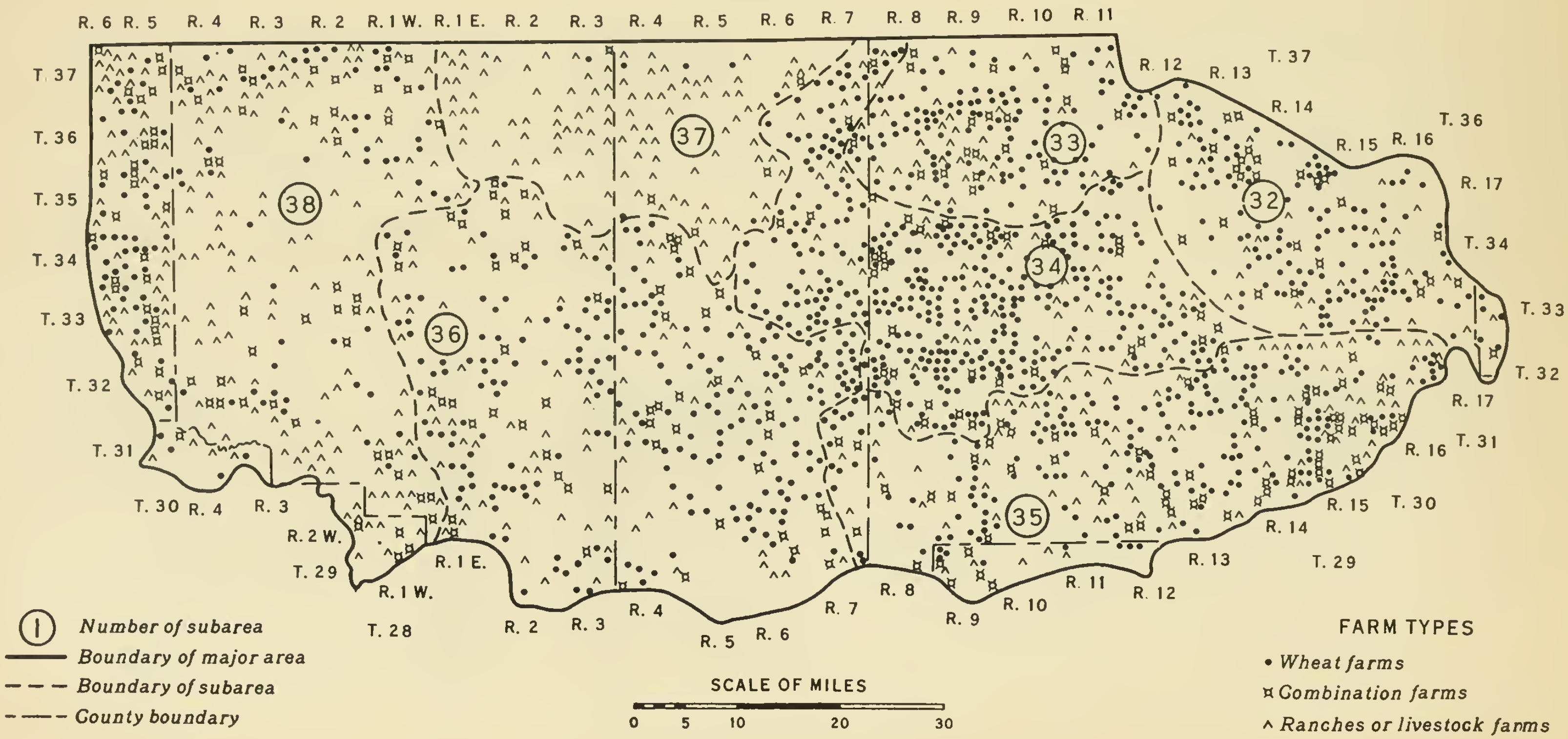


THE SUB-AREAS OF AREA VII



U. S. DEPARTMENT OF AGRICULTURE NEG. 38427 BUREAU OF AGRICULTURAL ECONOMICS

PRESENT LOCATION OF FARMS BY TYPE AND TYPE-OF-FARMING SUBAREAS, AREA VII, MONTANA

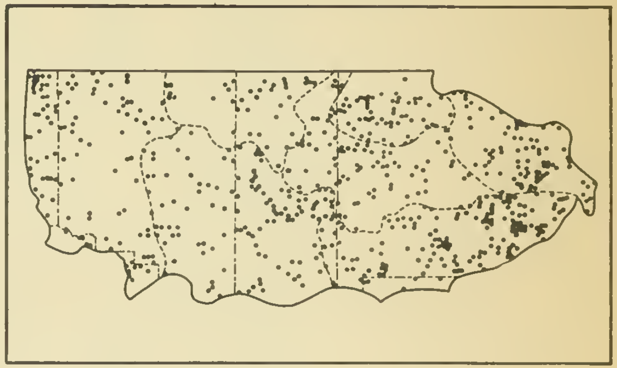


U.S. DEPARTMENT OF AGRICULTURE

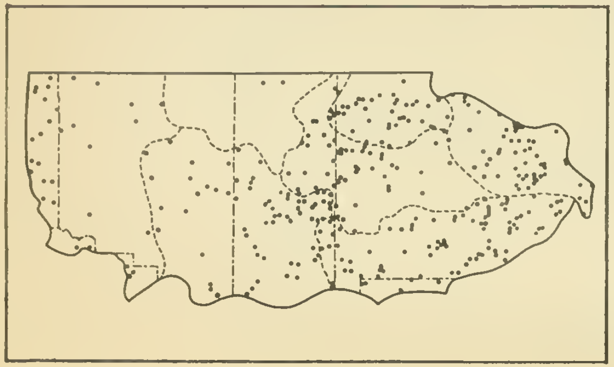
NEG. 34842 BUREAU OF AGRICULTURAL ECONOMICS

FARMS HAVING GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

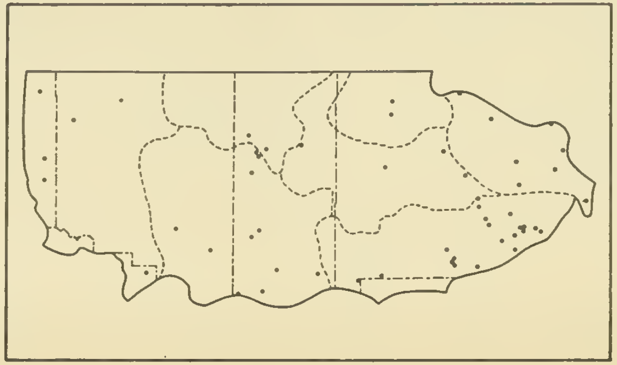
ALL FARMS



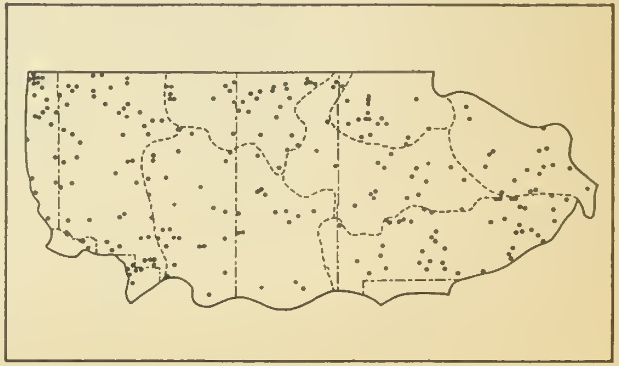
WHEAT FARMS



COMBINATION FARMS



LIVESTOCK FARMS OR RANCHES

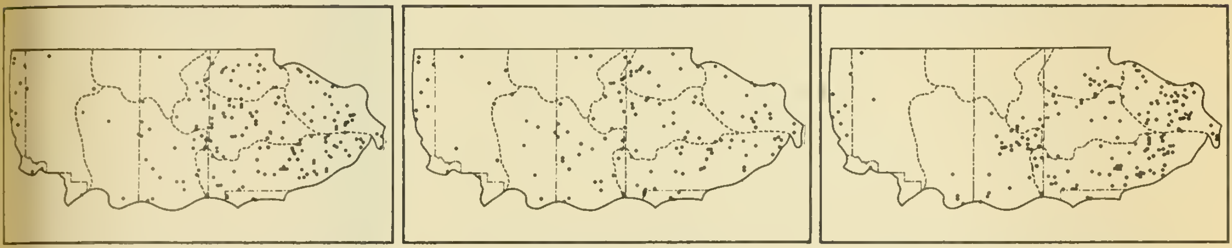


U. S. DEPARTMENT OF AGRICULTURE NEG. 35404 BUREAU OF AGRICULTURAL ECONOMICS

MAJOR WEAKNESSES IN FACTORS AFFECTING INCOME ON FARMS WITH GROSS INCOME EXPECTANCIES OF $1,000 OR LESS

WHEAT FARMS

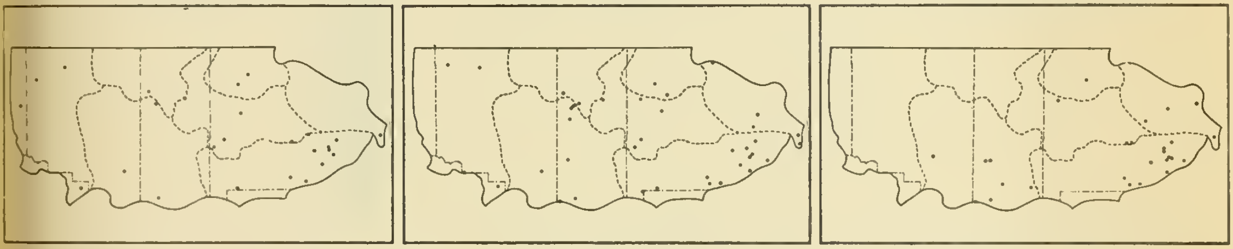
TOTAL ACRES OPERATED | ACRES SEEDED TO WHEAT | WHEAT YIELDS PER SEEDED ACRE



320 ACRES OR LESS | 100 ACRES OR LESS | LESS THAN 5 BUSHELS

COMBINATION FARMS

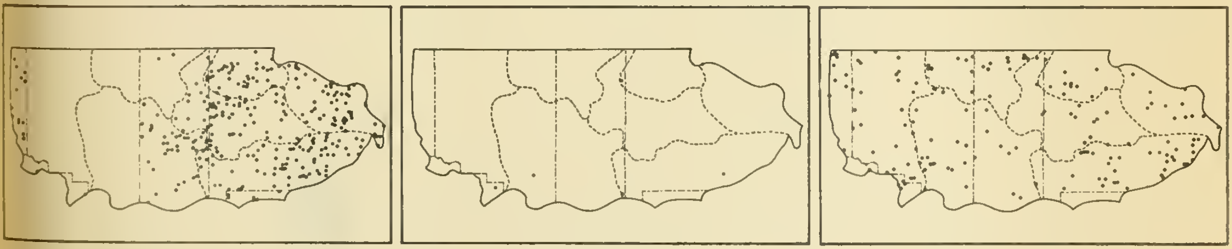
TOTAL ACRES OPERATED | ACRES SEEDED TO WHEAT | WHEAT YIELDS PER SEEDED ACRE



320 ACRES OR LESS | 100 ACRES OR LESS | LESS THAN 5 BUSHELS

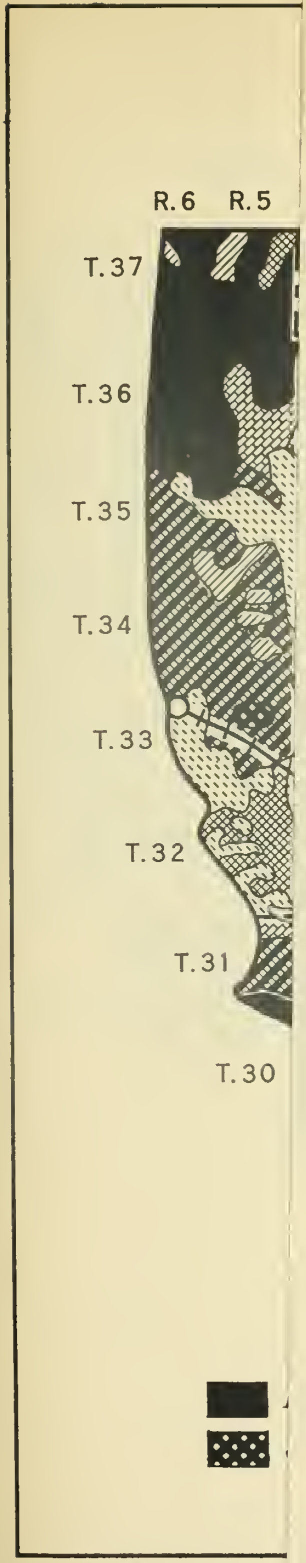
ANIMAL UNITS

WHEAT FARMS | COMBINATION FARMS | LIVESTOCK FARMS



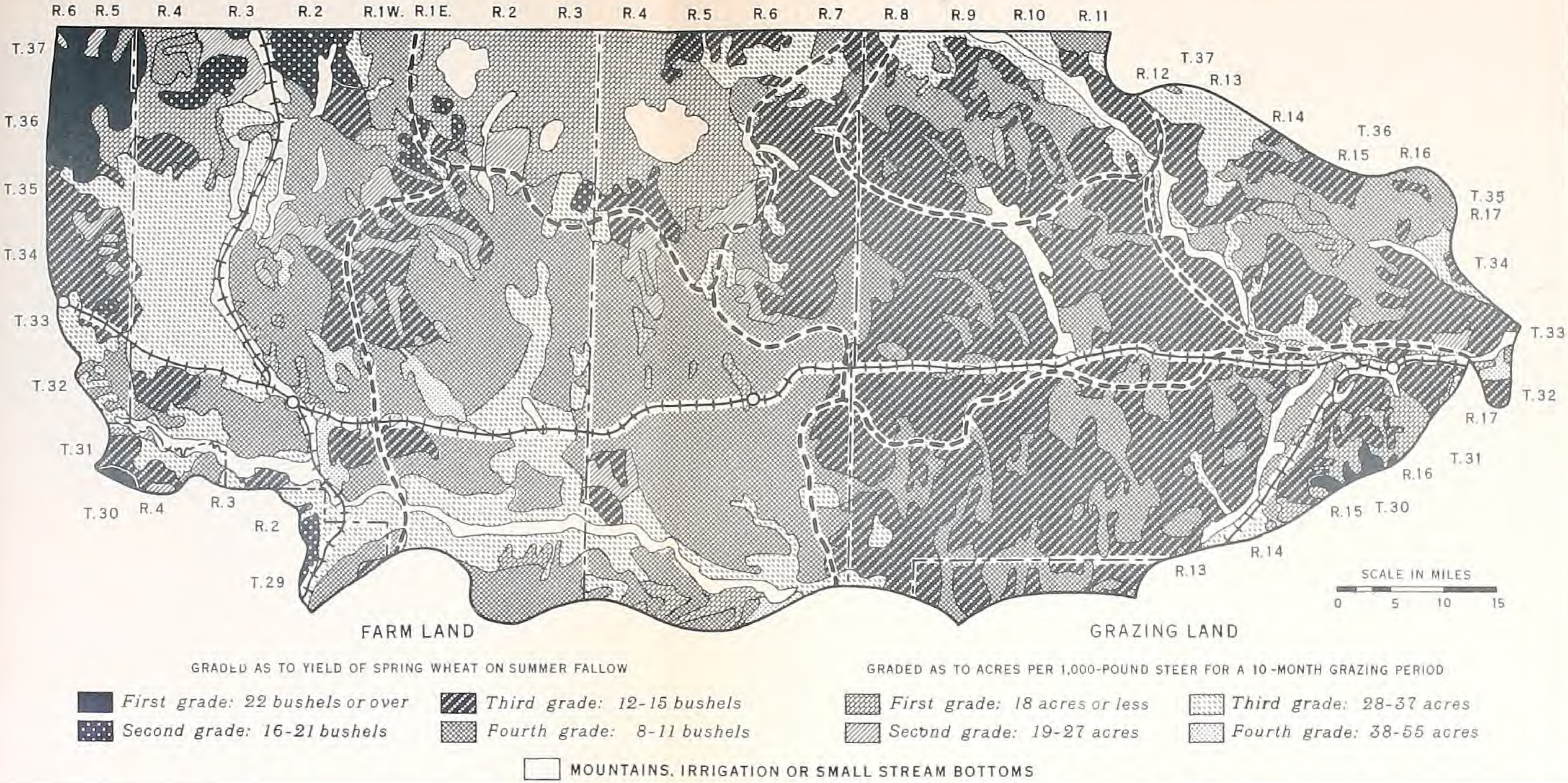
NO ANIMAL UNITS | 1-10 ANIMAL UNITS | 25 ANIMAL UNITS OR LESS

U. S. DEPARTMENT OF AGRICULTURE NEG. 35403 BUREAU OF AGRICULTURAL ECONOMICS



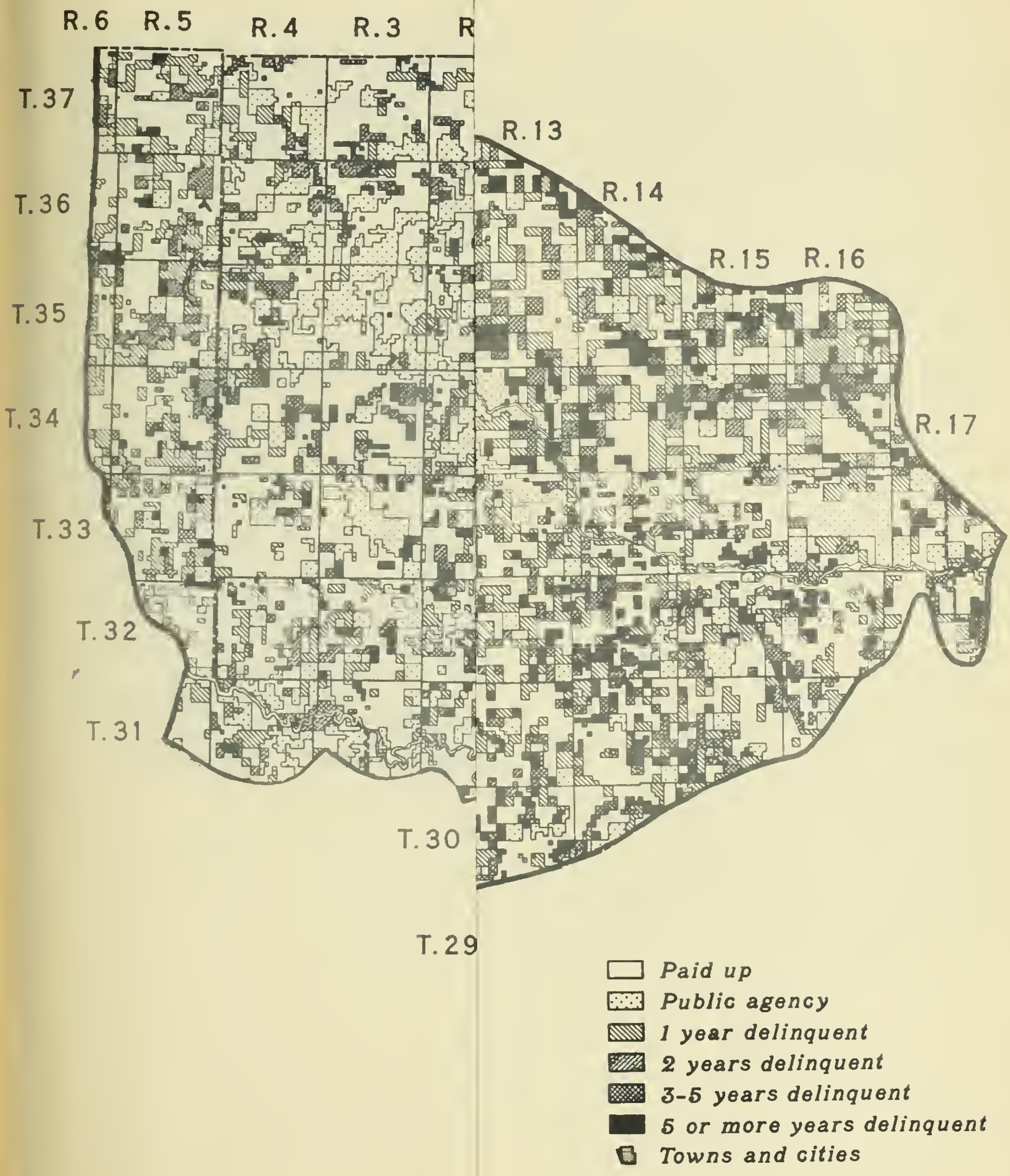
U. S. DEPARTMENT OF

CLASSIFICATION OF FARM AND GRAZING LAND, AREA VII, MONTANA

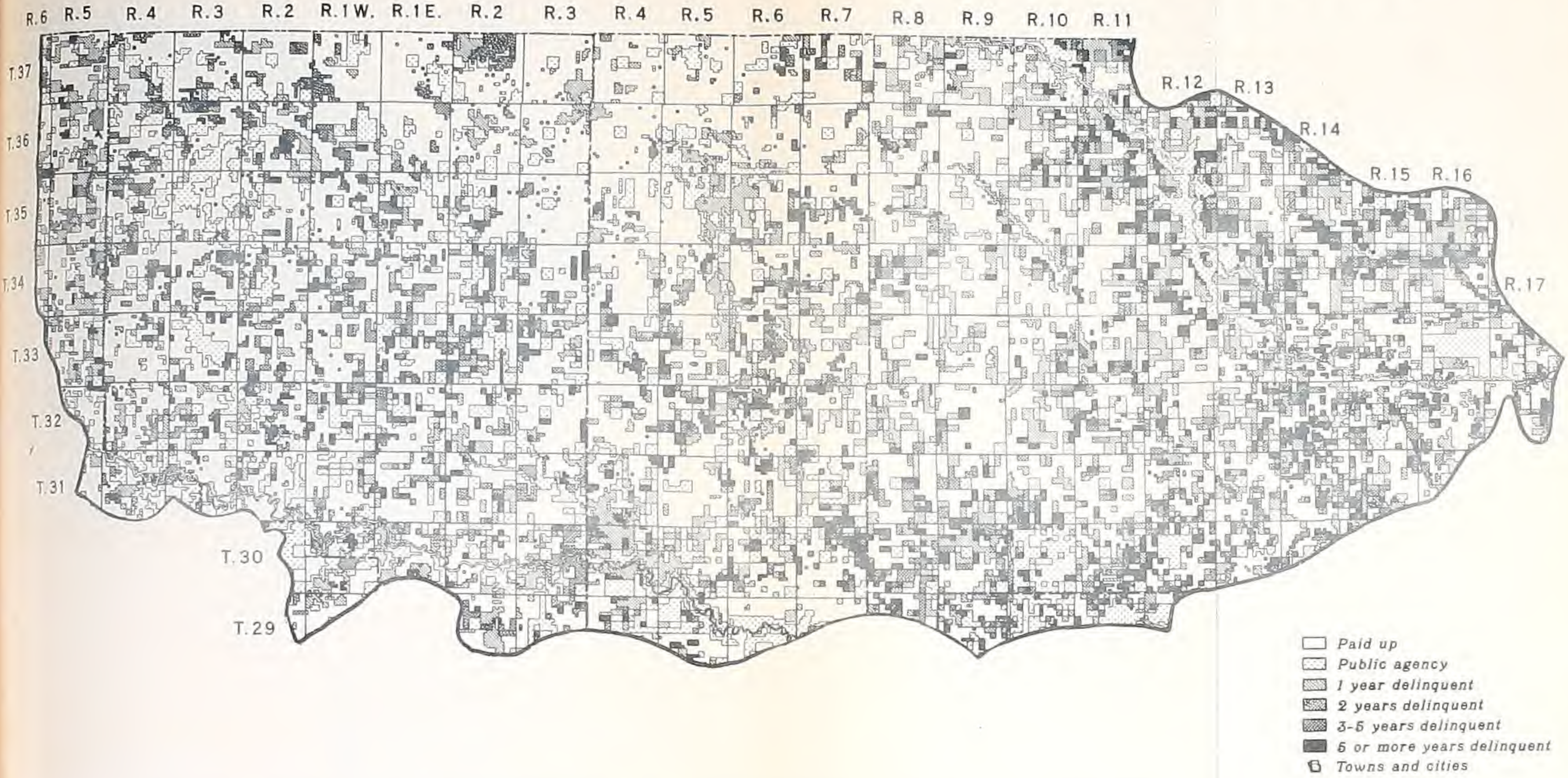

R.6
R.5
R.4
R.3
R.2
R.1W.
R.1E.
R.2
R.3
R.4
R.5
R.6
R.7
R.8
R.9
R.10
R.11
R.12
R.13
R.14
R.15
R.16
R.17
T.37
T.36
T.35
T.34
T.33
T.32
T.31
T.30
T.29
SCALE IN MILES
0
5
10
15
FARM LAND
GRADED AS TO YIELD OF SPRING WHEAT ON SUMMER FALLOW
First grade: 22 bushels or over
Second grade: 16-21 bushels
Third grade: 12-15 bushels
Fourth grade: 8-11 bushels
GRAZING LAND
GRADED AS TO ACRES PER 1,000-POUND STEER FOR A 10-MONTH GRAZING PERIOD
First grade: 18 acres or less
Second grade: 19-27 acres
Third grade: 28-37 acres
Fourth grade: 38-55 acres
MOUNTAINS, IRRIGATION OR SMALL STREAM BOTTOMS

U. S. DEPARTMENT OF AGRICULTURE NEG. 35402 BUREAU OF AGRICULTURAL ECONOMICS

STATUS LY 1, 1936



S. DEPARTMENT OF AGRICULTURE 38245 BUREAU OF AGRICULTURAL ECONOMICS

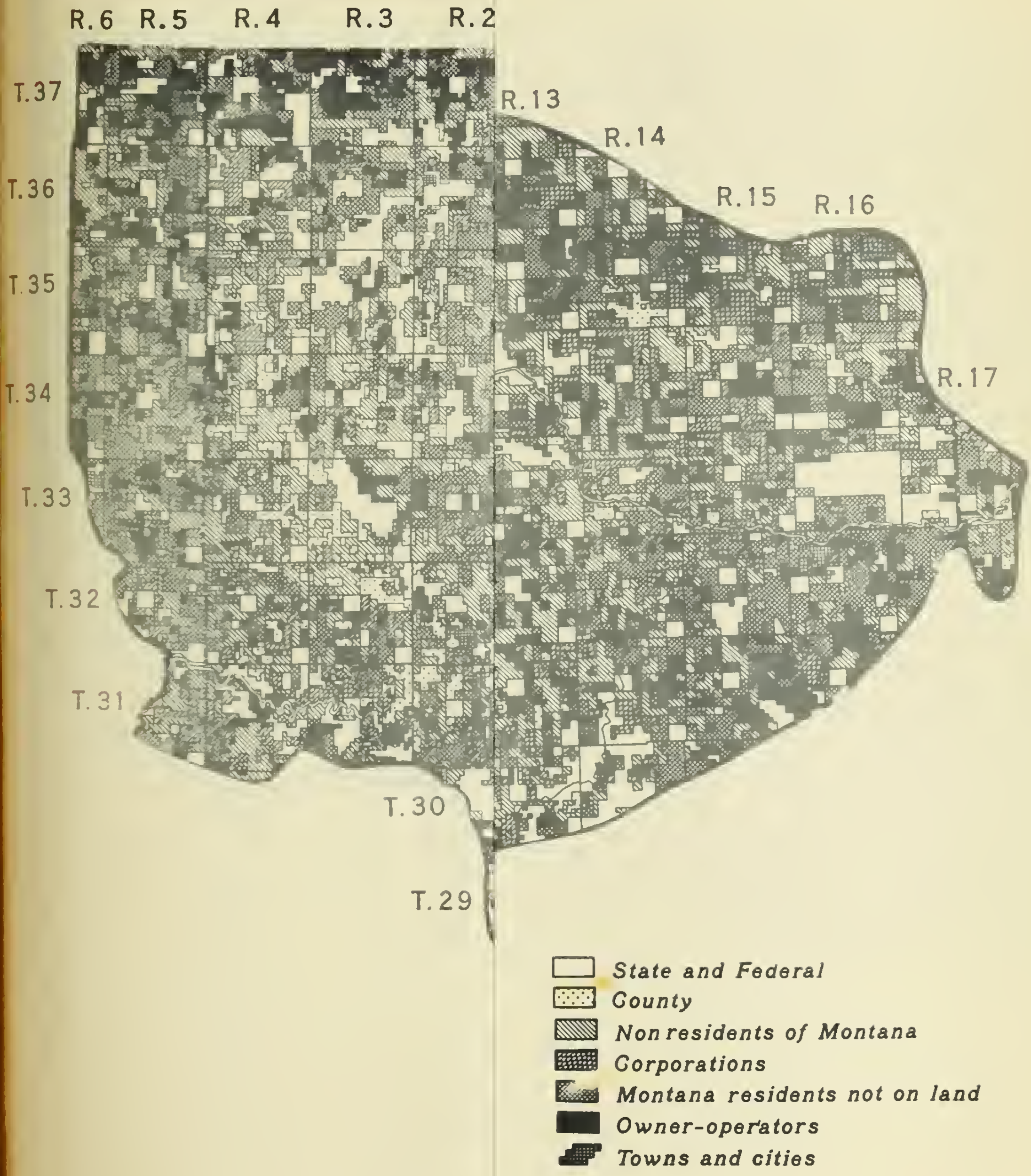


STATUS OF TAX DELINQUENCY; AREA VII, MONTANA, JULY 1, 1936

S DEPARTMENT OF AGRICULTURE

NEG. 38245 BUREAU OF AGRICULTURAL ECONOMICS

KIND OCH 1, 1937



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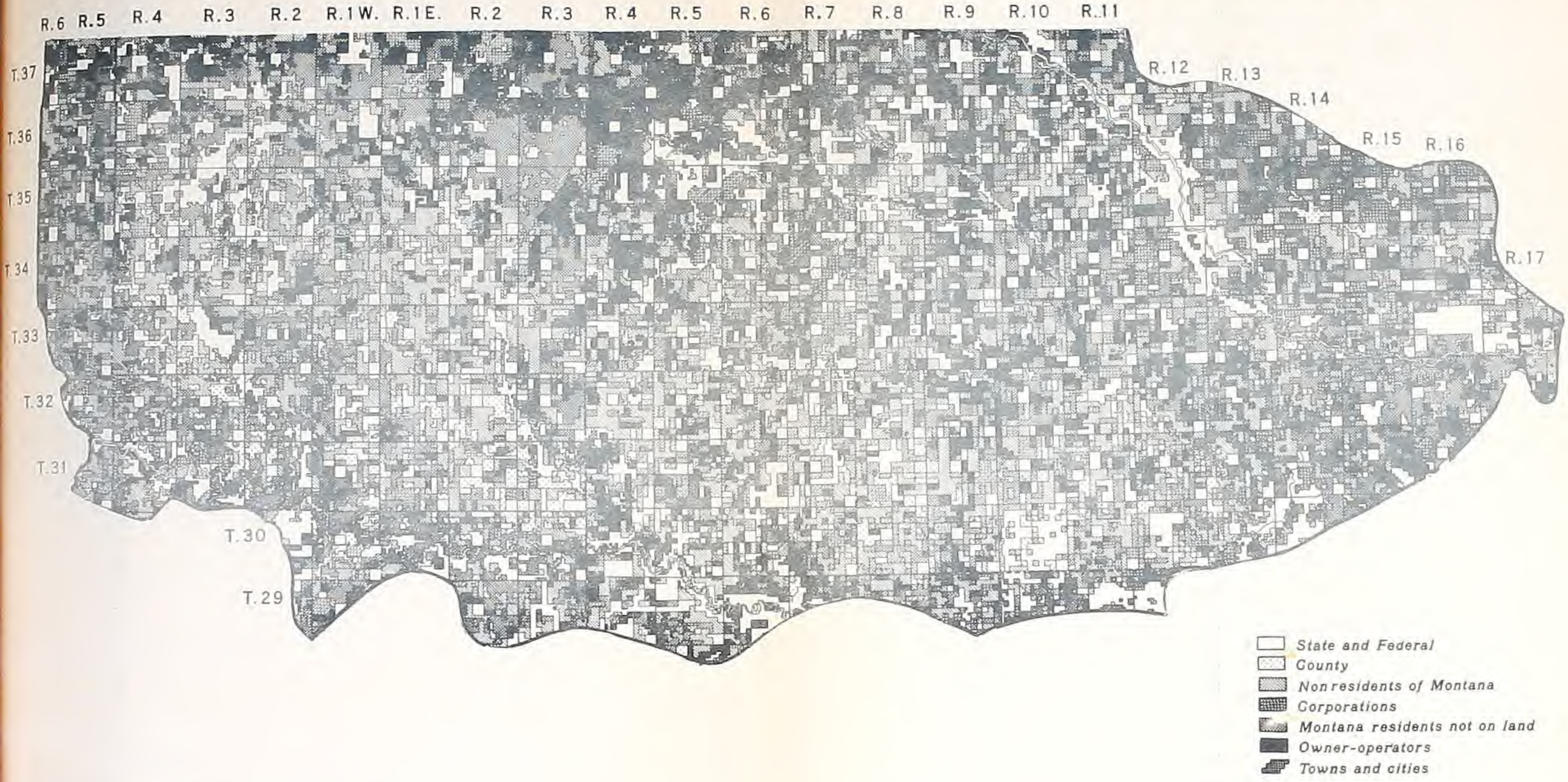

KIND OF LAND OWNERSHIP; AREA VII, MONTANA, MARCH 1, 1937

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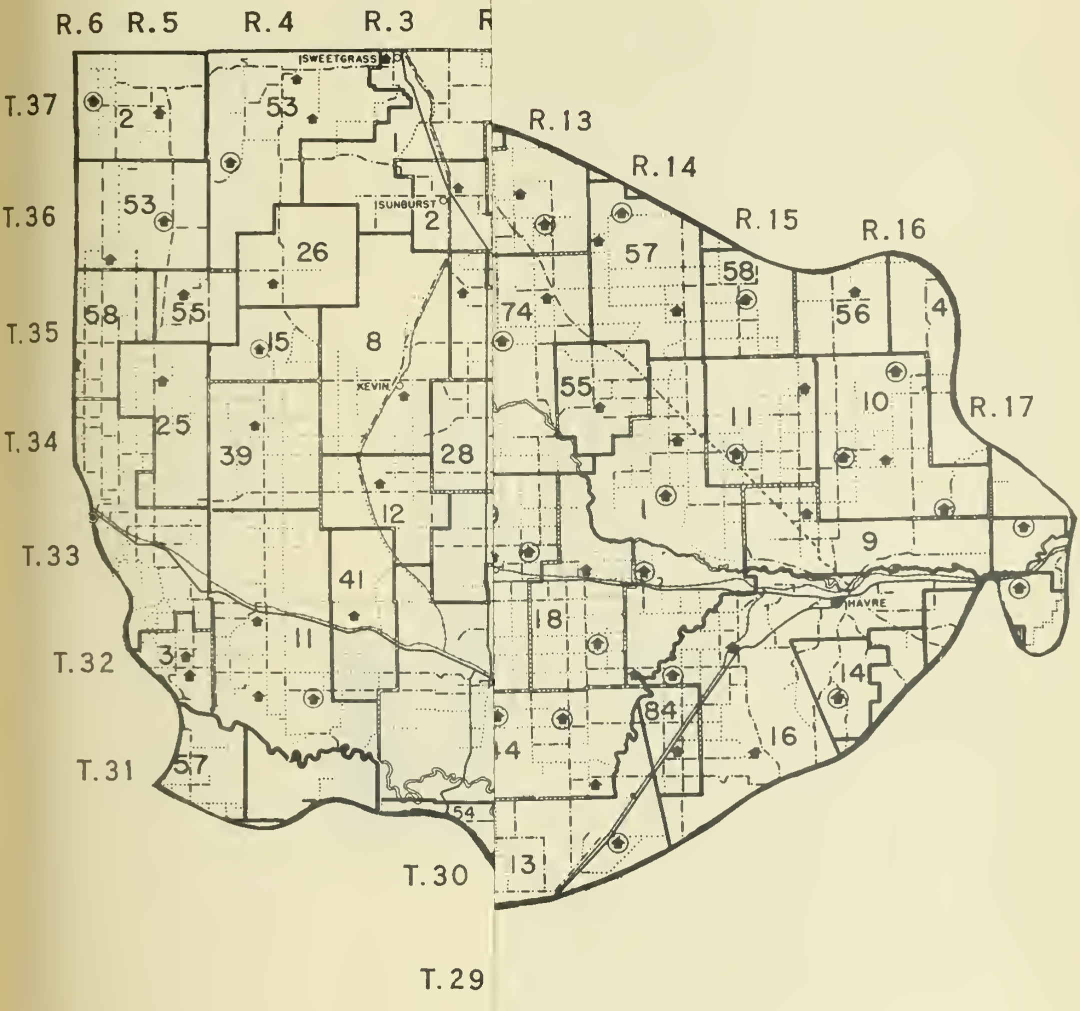
BUREAU OF AGRICULTURAL ECONOMICS

39



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.S. DEPARTMENT OF AGRICULTURE 38239 BUREAU OF AGRICULTURAL ECONOMICS

ROADS AND SCHOOLS; AREA VII, MONTANA, 1939